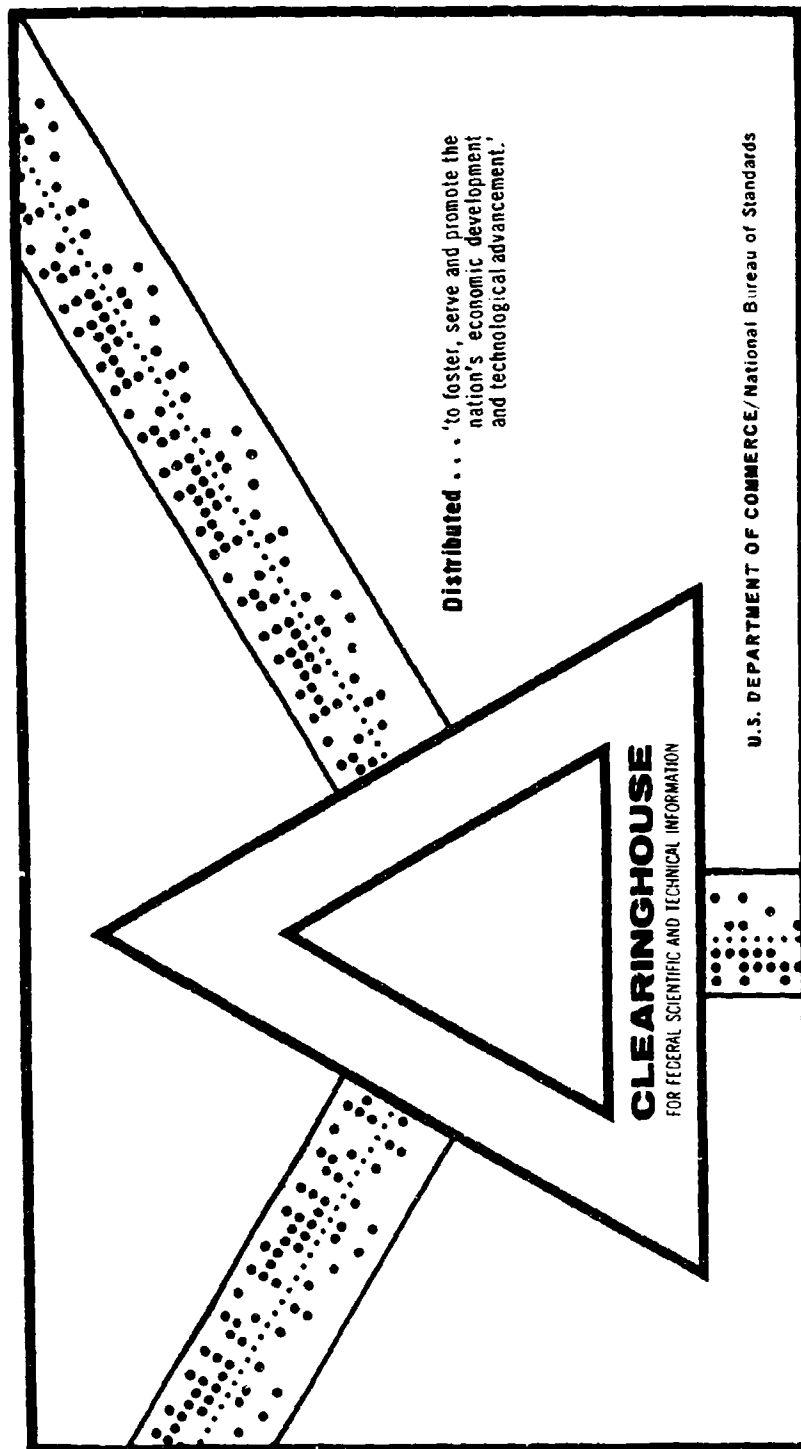


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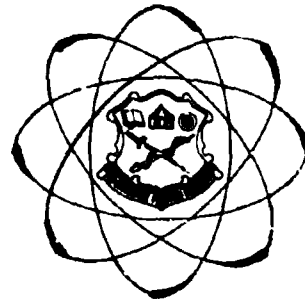
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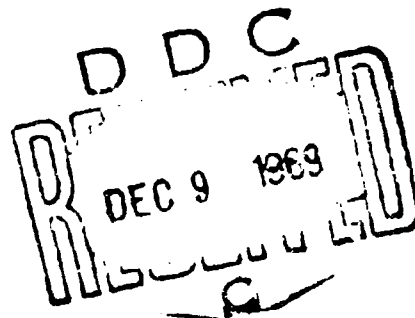
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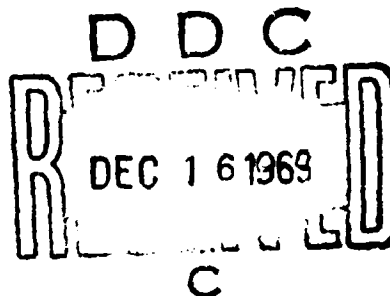
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THE FUTURE OF HEALTH CARE DELIVERY

Papers Presented at the

**1969 United States Army-Baylor University
Program In Health Care Administration
Preceptors' Course**

9 - 11 April 1969



**United States Army Medical Field Service School
Brooke Army Medical Center
Fort Sam Houston, Texas 78234**

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Throughout eighteen years of affiliation Baylor University and the United States Army Medical Field Service School have cooperated in offering a unique graduate educational experience in health care administration to military officers. Because of the growing need for quality health care executives, our emphasis is on coordinated instruction, a carefully supervised residency, and a meaningful program of continuing education for our preceptors and our graduates.

An integral part of this program has been the annual assembly of preceptors at the United States Army Medical Field Service School. The 1969 Preceptors' Course was an experience both challenging and rewarding for its participants. Baylor University and the United States Army Medical Field Service School are sincerely appreciative of the generous and earnest contribution of those health care leaders whose presentations have made this event a milestone in this cooperative venture in graduate education.



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Introduction

Major General O. Elliott Ursin, Medical Corps*

Each spring, the preceptors of the United States Army-Baylor University Program In Health Care Administration assemble to prepare for their educational tasks in the year to come. This educational meeting has taken the form of a seminar, an institute, or a conference. In 1969 this event was formally established as a Department of the Army course under the sponsorship of The Surgeon General of the Army to be conducted at the U. S. Army Medical Field Service School.

The objectives of this course, as outlined in Department of the Army directives, are to provide selected Army Medical Department officers with a basic philosophy and a functional knowledge of the duties and responsibilities of the health care administration preceptor. To be included in the course is a comprehensive orientation to the changing administrative practices and problems affecting the health care administration field. This in order to insure that the preceptor is acquainted with the latest applicable developments in this area.

The course was developed to provide the preceptor with an awareness of the importance of the health care administration residency for which he has academic responsibility in the award of six semester hours of graduate credit as a segment of the two year formal educational program leading to a master's degree in hospital administration.

On 9, 10, and 11 April 1969, the Preceptors' Course was conducted at the U. S. Army Medical Field Service School. This year, two unique experiences occurred:

*Commandant, United States Army Medical Field Service School.

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First, all were privileged to hear addresses by leading representatives of the major health societies and associations.

Second, the proceedings were conducted within the studio and facilities of MFSS-TV—a modern closed circuit television activity. This has made it possible to color videotape each presentation for use in the Army Medical Department's continuing education programs.

In view of the nature and currency of the talks by each of our speakers, we felt it was important that we make available their thoughts to interested parties in the field of health care—and thus this publication.

Part I
THE FUTURE

Future Health Care Delivery Systems

George W. Graham, M.D.*

The 20th Century often is called the century when man, having conquered most of the problems nature put in his path, now must conquer those he has created for himself. The most serious of these is that as our skills increase, our wisdom often seems to decrease. Most of us see this as a warning about our skills of destruction—war and nuclear holocaust. But, as one politician put it, few of us see this as a warning about our skills of healing—about the health and medical care the American people receive—and for which the Americans are now paying over fifty billion dollars a year or approximately six percent of the gross national product. For when it comes to advancing medical science and reducing, in general, the risk of death, disease and illness, we Americans have made outstanding achievements. But, when it comes to providing these benefits and services to all who need them—when they need them—where they need them—at costs that are reasonable and that they can afford—we seem to find great shortcomings and failures.

As president of the American Hospital Association it would be expected of me to confine the major portion of my comments today to the hospital system and how I see its involvement in the future health care delivery systems in our country. I am sure you will accept that, of necessity, I will have to involve other sectors of our health care systems as I proceed.

Over the past two years a number of reports have been initiated and produced at the Federal Government level to study the health care system in our United States. A quotation from the report of the National Advisory Commission on Health Manpower would seem to be an appropriate introduction to my presentation.

*President, American Hospital Association.

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The organization of health services has not kept pace with advances in medical science or with change in society itself. Medical care in the United States is more a collection of bits and pieces (with overlapping, duplication, great gaps, high costs and wasted effort), than an integrated system in which needs and efforts are closely related.¹

To further set the stage, I would like also to quote from a document published in September 1965 by the American Hospital Association titled "The Changing Hospital and the American Hospital Association."

The concept of the hospital as a collection of the necessary physical facilities and personnel to provide medical care within its building, or set of buildings, is no longer viable in today's medical care system. The hospital now must be an organizational as much as a physical creature, an organized arrangement of all medical resources necessary to bring the individual, wherever located, into contact with the skills of his physician and other members of the health care team.²

The scientific explosion has obscured, although it helped to produce, significant organizational changes within the hospital. The physician is no longer merely a welcome and essential "visiting man" on the hospital stage. He is increasingly involved in the organizational workings of the hospital. He must be given the opportunity and the responsibility to help write the organizational script as well as act from it. The "visiting staff" is now the "active" staff. The hospital medical staff is becoming increasingly the organizational center of the professional activities of the whole medical care system in a community.

What do we mean by the word "system"?

A modern dictionary defines "system" in at least two ways as follows:

An assemblage or combination of things or parts forming a complex or unitary whole.

A coordinated body of methods or a complex scheme or plan of procedure.³

¹Report of the National Advisory Commission on Health Manpower, Vol. 1 (Washington, D.C.: Government Printing Office).

²American Hospital Association, *The Changing Hospital and the American Hospital Association* (Chicago: American Hospital Association, 1965), p. 3.

³Jesse Stein, ed., *The Random House Dictionary of the English Language, The Unabridged Edition*, 1966, p. 1444.

The Report of the Secretary's Advisory Committee on Hospital Effectiveness issued in April of 1968 would seem to be in proper perspective for our consideration today what would appear to be the proper role of the modern hospital in overall health matters. This particular report clearly points out that the role of the modern hospital will be changing, or should change. To further emphasize this comment, let me share with you an excerpt from this particular report to the Secretary of Health Education and Welfare.

It is implicit in this report, as it was throughout the committee's deliberations, that the hospital is considered the principle organizing focus of a new and more effective system for the delivery of health care—not necessarily because hospitals as they exist today in most communities have all the capabilities that will be required for development of the more rational health care system foreseen in the committee's recommendations and discussions, but simply because in most communities the hospital has more of these capabilities than are likely to be found any place else.⁴

A further excerpt really challenges the hospital system in our country as to what must be done by our hospitals in the future.

Some observers and critics of the health service have argued that hospitals cannot logically be expected to serve as the organizing focus for a more effective health care system, because hospital revenues depend upon keeping acute beds occupied, and hospitals can't reasonably be expected to cut down or cut out revenues by voluntarily keeping people out of these beds—whether this is done by serving them as outpatients, or referring them to nursing homes, or caring for them in their own homes, or cutting short their hospital stays, or consolidating hospital departments, or any of the other things that are seen as necessary in an integrated, efficient health service economy. This limited view of the hospital as a self-serving enterprise having no mission outside its own walls is unquestionably true of some hospitals in some communities, but the Secretary's Advisory Committee on Hospital Effectiveness rejects it as demonstrably untrue of hospitals generally. The spontaneous, voluntary efforts of many hospitals in recent years to join in such movements as accreditation, areawide planning, medical audits, utilization review, uniform accounting and pricing policies, expansion of outpatient services and extended care facilities, and joint ventures and shared services of all kinds are overwhelming evidence that the capabilities for serving as the organizing focus of a more effective health care system exists within our hospitals.⁵

⁴U.S. Department of Health, Education, and Welfare, *Report of the Secretary's Advisory Committee on Hospital Effectiveness* (Washington, D.C.: Government Printing Office, 1968), p. 33.

⁵*Ibid.*, pp. 33-34.

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We in the hospital field have concluded that the hospital is fast becoming the central institution for the delivery of modern scientific services. These medical services can be preventive, ambulatory, acute or rehabilitative. The hospital itself may not offer each and every one of these services but I do believe that the voluntary hospital system must demonstrate its ability to deal adequately with the coordination and the availability of these services to all segments of the community in addition to its main internal task of maintaining and improving the quality of inpatient hospital care. In other words then, we must accept the fact that the function and role of the hospital in the next decade or two will be, and must be, drastically transformed.

One might ask, why all this concern? Why do we not continue what we are doing today as it has been said in many parts of our country, and even in the world, that the United States is providing the best health care program of any nation in the universe? There does seem to be evidence to the contrary. Again I bring to you a quotation from a government official in the Department of Health, Education and Welfare—

It is a tragedy—for which all of us must share in the responsibility—that the lives of millions of our own poor could be quickly and dramatically improved without a single major addition to our knowledge of the science and practice of medicine. We know much can be done to prevent premature birth and reduce high infant mortality rates. We know how to control much of the tuberculosis, blindness, the crippling and the other ills which strike with particular disaster among the young and the poor. We have not applied our skills adequately, and the result has been needless illness, needless crippling, premature death and preventable death.⁶

This same government official just recently went on to speak of the urgency of bringing about a different kind of medical and health care. The care that he gives several names to, such as modern public health, or comprehensive health care, or community health care. Basic to all of these descriptions is the understanding that medical care, or health care, can no longer be considered only the episodic care of the acutely ill individual but must include total health care. ("Illness Care versus Health Care")

⁶Philo R. Lee, "Creative Federalism—The Universities, The Medical Schools, and the Teaching Hospitals," speech at the Tenth D. Spencer Berger Lecture, Yale-New Haven Medical Center, October 26, 1966.

This is the challenge I believe the hospitals of our nation face today. I feel the hospitals must take leadership as they emerge as the potential central focus for health care in the community—to make sure that the people in the community have access to adequate health services and have the opportunity for optimum physical, mental and social efficiency and well being. Of course, the hospitals cannot do this alone, although they can play a large role in dealing with the need, demand and utilization of health services in the community.

Literature abounds with examples of community hospitals providing for these preventive, ambulatory and rehabilitative services in a community, just referred to. It is up to us in the hospital field to establish in some way patterns for the provisions of such services by all hospitals regardless of size to the extent capable by the individual hospital and its community. Just the phrase being used so frequently today, "keeping the patient out of the hospital"—means that the patient will receive what he actually requires in the hospital and not be exposed to unnecessary services, having no direct relationships to his medical needs. Underlining this feeling, of course, is that one great concern we all have, namely, the ever increasing rise in our health care costs, both hospital and medical. Consequently, we must plan to make sure that the re-definition of the hospital is such that it is the place where the patient goes when he actually requires the services it can offer him—obtain these services within as short an interval as possible as required by his needs—then, sponsored by the hospital, go on to progressive care in other institutions or for other services within the community as needed by the patient. This is good comprehensive care but we must, also, be sure that this comprehensive care is both *patient* and *community oriented*. I might comment briefly on the reason for adding the words *community oriented*. As long as health care is not *community oriented*, it will be provided in a very spotty fashion and our present patterns of care which seldom give optimum care to any very large segment of the population over any extended period of time, will persist.

To put it another way, I am speaking of the involvement therefore of the hospital in our future health care programs. I have intimated earlier, with the advance of medical science, hospitals have become the primary focus of community medicine. Yet,

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sadly to state, as they grow and develop, too many of them are still planning toward institutional rather than community goals. Each thinks in terms of its own individual needs for expansion, for renovation—sometimes to be brutally frank, for self-aggrandizement. By subordinating their separate interests to community needs, jointly determined and jointly met, hospitals could greatly increase *the total hospital contribution* to the health of the community without increasing the *total hospital investment* of the community. This returns us once more to the thought—and the pressing need today—for looking very closely at our health care costs and how we might, without damaging the health system, moderate these costs. To pursue this point further with the thought to conclude that the major problem facing hospitals today is that of providing more adequate distribution and delivery of health care services.

In the future then, the general hospital, or, when well indicated, the specialty hospital must reflect to an appropriate degree the needs and aspirations of the community. The hospital of the future also must be more keenly attuned to changes in medical practice and to social and scientific developments and advances.

Let us now look for a few moments at the distribution patterns of health care services in our country. The primary level in medical care is, and has been, through the physician in his private office where he may render care himself or refer the patient to another physician, or to a hospital. Undoubtedly you will be hearing from other speakers today and tomorrow about developments in this matter of medical practice, hopefully speaking towards the merits and demerits of solo practice versus group practice and what they mean to the attainment of the goal of comprehensive health care for our people.

Then we go on to the ambulatory care provided at this primary level by hospitals, namely, emergency departments and other outpatient services. These have been a response to changes in medical practice, namely, due to the great mobility of our population we find a greater number of persons without their own physician and, of course, coupled with the demand of the public for health services on a 24 hour basis, the emergency room is filling a public need due to the unavailability of the physician during the entire

24 hours. It is estimated in this country that over 300,000 persons per day make use of ambulatory care facilities and the number is increasing steadily.

Then we speak of the next level of care which we find in the short-term general hospital. We have certainly talked enough of the central role of the hospital in the community health program and how medical practice is becoming more and more hospital based. Also, I have mentioned in passing, the increasing trend to provide post-hospital facilities, such as rehabilitation centers, extended care institutions and skilled nursing homes which do represent other levels of health care. Finally, we cannot overlook the need for *home care* and *visiting nurse programs outside* of the health care institutions. Many of these programs are hospital based or hospital related.

I have given you a number of levels of health care which might be available to citizens in a community. The greatest challenge, as I see it today, is linking these levels together in a system and, if I may use the expression, a sensible system—one that at least tries to give *the right care* to the patient *at the right time*, *in the right place*, and *at the right cost level*—in the right amount.

I have on a number of occasions, and will continue to do so, give credit to the medicare program architects who provided a package of comprehensive health care benefits to the aged, extending from the acute care hospital service to home care and ambulatory services. The unfortunate lesson we have learned since the program was inaugurated, was that many of these services were not as yet available or in appropriate amounts but this fact, of itself, should not in any way detract from the fine architectural plan set up by the planners in the Department of Health, Education and Welfare.

To continue, we know well the need for these various levels of health care and the many services involved therein. What we lack is knowledge of the desirable distribution of these facilities today. For example, how many acute care hospital beds are actually needed and in what proportion in turn are beds in the extended care facilities likely to be needed for these same hospital beds?

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Many of my comments are in the form of questions simply because it must be admitted that the entire answers are not yet forthcoming. For example, what are the likely results on the rest of the health system of the projected sharp increase of utilization of outpatient facilities or, should it happen more quickly, of the organization of medical group practices?

In my quotation concerning the sad plight of many of our citizens in the country due to the lack of health services being available to them it would seem appropriate to conclude that the patterns of health care services delivery must be improved if, as has been intimated, not all health needs of all people are being met. Accordingly, what can be done to improve our health care services distribution patterns to approach making available comprehensive health care for every person who needs it?

To refer only briefly to this point, because I know that you will be hearing more about it from the other speakers, I feel quite strong that the medical profession is attempting to answer this question by various means: group practice; by delegating responsibility for more procedures to properly trained paramedical personnel; by using electronic and automatic equipment to reduce time spent on differential diagnosis, thus improving physician efficiency; by producing more physicians; and so forth.

In our hospitals we have developed paramedical professions to assist our professional nurses and, also, we have been delegating routine tasks to ward clerks, unit managers and other administrative personnel to free these nurses and the other paramedical professionals to do the tasks for which they have been trained—all to improve the efficiency and effectiveness of these health personnel.

Hospitals themselves are attempting to improve delivery of their services by a variety of cooperative arrangements, which include sharing facilities, such as laundries. We are also looking at the sharing of services of medical specialists and non-medical specialists; affiliations with other hospitals; actual mergers with other institutions; establishment of branch or satellite hospitals; development of in-hospital units to meet specific community needs; expansion of program and plant and many similar activities.

In a presentation on this same subject, Doctor Edwin L. Crosby, Executive Vice President and Director of the American Hospital Association, summarized it as follows—

Greater needs and demands, population mobility, rising costs of services, shortages of health manpower, medical advances, development of specialized facilities, increase in public use of ambulatory services, changes in medical practice, and other factors all cry out for a planned response on the part of the United States health care establishment. We have the technology to improve health care; we have much of the financing needed to spread the benefits of modern medical care; and we are in the presence of a growing social consciousness of the desirability of more and better care. The community will place upon the hospital the major responsibility to organize and administer a service program that meets its needs. To do this rationally, effectively, and economically, the hospital must carefully determine community, regional, and individual hospital requirements within the framework of a long-range, comprehensive plan.⁷

Every community needs the full spectrum of health care from preventive to therapeutic to rehabilitative services, but we must accept the fact that not every hospital could or should undertake to provide every band of the spectrum. This would simply continue down the line of inefficient duplication of services. It is rather the hospital's responsibility to recognize its position at the core of this delivery system and to participate in the assurance to the community that the services the community needs are provided. Thus we come to another pertinent part of our health delivery system today and that is *area-wide planning*. It almost seems too repetitious to say that we must not lose sight of the fact that we are in a period of great change which is affecting not only the health care institutions themselves but the whole health care system as we know it today. We in the hospital field with the allied health associations are carefully re-examining our purposes, structures and functions. The already mentioned problems of rising costs, health manpower shortages, need for use of modern management tools and adoption of up-to-date methods of scheduling health services must be met and answered. There is no question in my mind and many others in the health field that the traditional hospital format program of services will not be adequate to provide these answers.

⁷Edwin L. Crosby, "Improving The Delivery of Health Care Services," *Hospitals*, XLI (September 1, 1967), 56.

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You will be hearing from the American College of Hospital Administrators, from Mr. Richard Stull, but, as an administrator, I wish to include these few comments in my presentation. As I see it, hospital management is a tremendously complex job and it is moving toward a top-management orientation. The administrator no longer seems to be an office manager and superintendent but is fast becoming a planner, developer, an organizer of services. I like to put it in this way—he is no longer being known as an administrator of a hospital but rather as an emerging health professional. No longer should his main concern be efficient performance of detail operations by the hospital staff, but rather the development of an organization for a health program adequate to meet the community's full need now and in the future.

I state the following without reservation—the quality, immediate and long range, of our voluntary hospital system has never looked better. Why? Very simply—because of the entry of increasing numbers of well trained hospital administrators into the field. These administrators, over the past two decades, have been developing and emerging as true professional health administrators, rather than as we have known them in the past, as just managers of hospital affairs within four walls.

The very challenging statement that there are serious deficiencies in the organization, financing and delivery of health services in our country, demands the closest attention of all health administrators.

As mentioned earlier, our nation's hospitals are moving gradually, but positively, toward this recognition of their responsibilities to the entire community and not simply to their prime basic responsibility of care of the inpatient. These new health administrators, as they are being called, have come about as we see the emergence of true management in hospitals evidenced by the introduction of budget and cost controls and many other increasing responsibilities and activities assumed by these health administrators. (Accreditation, industrial engineering, HAS, PAS, and so forth.)

We find the emerging generation of hospital administrators extremely sensitive to social, economic and political circumstances

and very aware of the impact of those forces on their individual institutions. These sensitivities are well attuned to the fact that overriding all of these considerations is the American public opinion which sees health care as the right of every citizen, with the availability to all of comprehensive health care at a reasonable level of quality and cost. This new breed of health administrators is well on its way to bringing about the changes that are required to make hospitals comprehensive community health centers.

The control of hospital affairs by vested interests is fast becoming a thing of the past as government becomes an enunciator of social policy on health matters, demanding as well that we must respect government as an ever greater purchaser of health services. This purchasing of health services on the part of government certainly gives it the right and responsibility to set reasonable standards of quantity and quality of health care. As one authority put it, he sees this new hospital, or health administrator, as a hard-headed intelligent professional with compassion for his fellow man. In addition, the hospital as an institution, is receiving several messages from society requiring it to make some shifts in its operations—the primary one being from a means to an end orientation.

In other words, the messages are coming through loud and clear that we should be concerned about what the hospital resources should be doing—not mainly putting them together and establishing them within four walls. In addition, pressures are mounting on hospitals for a switch from a production to a marketing orientation. In other words, hospitals must renew and beef up their contacts with their market. *The people they must serve.*

Eternal dissatisfaction—with everything we do—is the spark that lights the fires of progress.

Expectations In Dental Care

Harold Hillenbrand, D.D.S.*

INTRODUCTION

I am privileged to be numbered among the faculty for this Health Care Administration Preceptors' Course for I am impressed by the range of topics and with the distinction of those who will address you. I am also impressed by the obvious consideration being given to the totality of health rather than to its fractions. Finally, I am impressed with the emphasis that is being placed on health care delivery systems for these must be perfected if we are to reach the nation's goals in health.

Former Secretary of the Department of Health, Education and Welfare, John W. Gardner, has made a comment on health directly related to the purpose of this course as stated by the Department of the Army:

Health has a great deal to do with the quality of our lives. . . Health frees the individual to live up to his potential. . . We have said that each person should have the opportunity to fulfill the possibilities that are in him. And that is why we should strive to make the blessings of health just as widely available.¹

DENTISTRY AND THE TOTALITY OF HEALTH

Because dental health is an essential part of the total health of every person, there is a natural tendency not to recognize clearly that there are special problems related to dental health and dental care. There is also a natural tendency to assume that solutions for some of the problems of medicine and other fields of health can be applied automatically and without change to dentistry.

*Executive Director, American Dental Association

¹John W. Gardner, *No Easy Victories* (New York: Harper & Row, 1968), p. 52.

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Let us look at some of the reasons why this automatic application of solutions from other health fields does not really come to grips with problems related to dental care:

1. Dental caries (tooth decay) affects more than 95 per cent of all Americans and is especially devastating to children and young adults.
2. Periodontal diseases (diseases of soft tissues) afflict more than 80 per cent of persons over 40 years of age who still have some of their own teeth.
3. Both untreated dental decay and periodontal diseases lead to the loss of the teeth with the result that almost 30 per cent of our citizens over age 35 years of age and 45 per cent of those over 55 years of age have lost their natural dentitions.
4. The prevalence of dental disease in children is almost universal. By age two, 50 per cent of children have decayed teeth. On entering school, the average child has three decayed teeth. By age 15, the average child has 11 decayed, missing or filled teeth. The average Selective Service recruit has three missing and seven decayed teeth.
5. Cleft palate, with or without cleft lip, occurs once in every 700 births.
6. About one-half of all children in the United States under 15 have never been to a dentist and this per cent is higher in the rural areas.
7. Dental diseases can not yet be prevented, controlled or treated by prescription but almost always require time-consuming procedures by the dentist or dental hygienist. Dental diseases, because of ignorance or carelessness, can be cumulative, almost at the patient's option, with disastrous results on individual health and on the costs of providing reparative service for large population groups.
8. Dental diseases cause an annual loss of over 85 million man-hours at a cost of \$250 million and it is estimated that 40,000 of the two million industrial absentees are suffering from dental disorders.
9. Dental science has a present capacity for preventing and controlling dental disease if the younger age groups of the population can be reached. The United States, the richest country in the world, is the only advanced country which does not have a national, organized dental health care program for children.

SCIENTIFIC AND TECHNICAL RESOURCES

The scientific and technical resources available for the prevention and control of dental diseases have been vastly increased through research, particularly in the past ten years. In 1958, 72 per cent of the dental research in the United States was conducted by the dental schools at a cost of \$4.5 million. In 1968, the National Institute of Dental Research, a member of the complex of National Health Institutes, had a budget of \$30.3 million, up from \$10 million in 1960. This year the Institute will support 268 research grants in all types of research institutions, 98 training grants and 121 fellowships. Currently 25 of the Institute's research grants are identified with hospitals.

The military services have a great stake in improving dental health because of the large number of people in the younger age groups in their ranks. The Department of the Army operates the U. S. Army Institute of Dental Research which has conducted basic research in the prevention and control of dental diseases. A recent report of the Army Dental Corps states:

Our Preventive Dentistry Program is progressing nicely. In FY 68 we reached only about 28% of all military personnel with the caries prevention program. It was just not possible to get all personnel into our clinics for oral prophylaxis, application of topical fluoride and proper oral health counselling . . . It was decided to incorporate into our program a new prophylaxis-caries inhibiting paste [which is] suitable for self-application.²

The Navy has also conducted an intensive program of preventive dentistry and, in addition, is conducting basic research in caries control, on equipment for the dental operator to meet the advanced concepts of dental practice and in the training of dental auxiliaries to provide additional manpower.

While dental research is undersupported in relation to the monumental size of the national dental health problem, steady progress has been made and exciting new developments loom on the horizon: a vaccine effective against dental caries; a filling material which will bond directly to the structure of the tooth and will be impregnated with a cariostatic agent and require far

²U.S. Department of the Army, Office of The Surgeon General, "Memorandum For Army Dental Corps Officers," No. 33, March 1, 1969. (Mimeographed.)

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less time for both patient and dentist in the placement of a filling; the application of the laser beam to erupted teeth to produce a new barrier to the invasion of dental caries.

While dental research opens ever-widening horizons for the prevention and control of dental diseases, there are already at hand sufficient information and resources to bring the national dental health problem within the range of professional and fiscal resources through an organized program:

1. Education of the public to the importance of personal dental health
2. Regular dental care to eliminate the accumulation of dental diseases
3. The fluoridation of public water supplies which reduces dental caries on the order of 60 per cent through an effective public health program for the control of dental caries. Fluoridation is safe, effective and economical costing approximately 14 cents per person annually for those benefited by a fluoridation program. Approximately 83 million persons in the United States are presently beneficiaries of fluoridated water supplies. Six states have enacted mandatory fluoridation laws.

The topical application of fluorides is desirable when the communal water supply cannot be fluoridated. While topical fluoridation produces a reduction in the incidence of dental caries of a lesser order than fluoridation of the water supply, a reduction of approximately 30 to 35 per cent, topical application is, nevertheless, an effective approach to caries control in certain circumstances. Fluorides can also be applied topically through dentifrices which have demonstrated their efficacy in the control of dental caries.

Even if all of these measures were applied effectively throughout the nation, it is clear that there would be a net deficit of dental personnel, in the present and predictable future, if the nation were to cope adequately with the accumulation of dental disease.

FORECAST OF DEMAND FOR DENTAL SERVICES

The forecast of the demand for dental services, under programs already in being or contemplated, is ominous. This demand will be reinforced by (1) the educational level of our population; (2) normal population growth which is estimated at 18-20 per cent; (3) higher per capita incomes with growth estimated at 25-30

per cent; (4) the availability of dental prepayment plans which will grow from 12-30 per cent and remove, in major part, the economic barrier to dental health services for thousands of people.

To these factors can be added the expanding programs of project Headstart, Neighborhood Health Centers, the dental benefits of the Medicare and Medicaid program and the initiation of the ADA National Dental Health Program for Children—all of which will place additional burdens upon funding and dental manpower.

New programs are already on the design boards. A 1967 report of a Special Subcommittee on Military Dental Care of the Committee on Armed Services of the House of Representatives reported that:

(1) The dental care needs of military dependents are not being adequately met. In those instances where the needs are being met, significant financial hardship sometimes results; (2) a dependent dental care program, in addition to being necessary from a health standpoint, would contribute to improve morale in the Armed Forces; (3) the Department of Defense is to be congratulated for its forward-looking preventive dentistry program for children of military personnel and should pursue the program vigorously; (4) the space-available dental care for dependents of military personnel provided outside the United States and in 'remote' dental areas in the United States provides only a small portion of the total dental needs of military families and is no substitute for a full dental care program. In addition, the present system is confusing and results in inequitable treatment, and the rules for determining 'remote' locations in the United States are susceptible to highly arbitrary interpretation; (5) a dental care program for military dependents appears to be feasible if properly structured but implementation of a program should be delayed until additional cost data (are) available for firm cost determination.³

Preliminary studies indicate that the annual cost of this program for dental care for military dependents would be on the order of \$123,000,000 annually.

The present dental bill of the nation is about \$3.5 billion dollars. If the programs just described are implemented in major part, it is estimated that, exclusive of dental care for military dependents,

³U.S. Congress, House, *Report of Special Subcommittee on Dependents' Dental Care of The Committee on Armed Services*, 96th Cong., 1st Sess., 1967.

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the dental profession will need to expand its production by approximately \$1 billion dollars in the next three to five years without an appreciable increase in the workforce of dentists. Obviously, this will place an extraordinarily difficult burden upon the present dental workforce in this country.

DENTAL WORKFORCE

The Bureau of Economic Research and Statistics of the American Dental Association estimates that there are currently 97,500 professionally active dentists in the United States, of whom 89,000 are in private practice. Most of the difference between these two figures is accounted for by dentists in the federal dental services.

The dentists in private practice are assisted by 144,300 full and part-time dental auxiliaries:

81,400	chairside dental assistants, full time
9,700	dental hygienists, full time
4,300	dental laboratory technicians in private offices
27,000	dental laboratory technicians in commercial dental laboratories, full time
20,900	secretaries and receptionists full time
7,700	dental hygienists, part-time

It is interesting to note that in the current workforce of approximately 250,000 persons, the growth in number, since 1965, has been 2 per cent for dentists and 23 per cent for dental auxiliaries. This large growth of number of dental auxiliaries has special significance if the nation is to meet its dental manpower needs since the ratio of dentists to population will remain precariously stable at 1:2,000 population through 1975 according to present projections.

With this somewhat bleak picture of dental manpower, it is obvious that the goals of the nation for dental health care can be met in only two ways: (1) increased efficiency of the dentist through increased technology, instrumentation and improved materials; (2) more effective use of dental auxiliaries.

The dental profession in the United States has used three auxiliaries for many years:

The dental hygienist, licensed or registered under the state dental practice act, has duties which vary considerably with the individual states. Basically, she may perform dental prophylaxis, apply preventive medicaments and engage in oral hygiene instruction of the patient. She must work under the direct supervision of the dentist.

The dental assistant has no legal status as such under the state dental practice act, and must work under the direction and control of a licensed dentist. In most states, the duties of the dental assistant are limited, in the main, to extraoral operations.

The dental laboratory technician usually operates within provisions in the state dental practice act but is prohibited from direct dealings with the public in almost all states.

The dental profession has had an intense interest in the past five or six years in delegating more of the dentist's non-professional tasks to the dental hygienist and dental assistant in order to assist in the production of more dental care. There has been extensive experimentation with this expansion and delegation of duties and significant research in this area has been conducted by the dental corps of the military services.

Experimentation at the University of Alabama has shown that the well-trained dental assistant performs better than the dental student in the accomplishment of certain procedures. A four-year study of the Indian Health Division of the Public Health Service is evaluating the increased productivity of the dental health team by delegating to trained auxiliaries certain additional functions which have been traditionally performed by the dentist himself. Dental practice acts are being amended in Minnesota, California, Nebraska, Maryland, Missouri, Montana and Texas to permit expanded duties for these two dental auxiliaries.

While very great progress has been made in the utilization of dental auxiliaries—for example, every dental student is now required to have formal training in dental school in working with the dental hygienist and dental assistant—I would be less than realistic if I indicated that there is no controversy in the dental profession

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on how far the expansion of duties should be extended. As state laws are modified or re-interpreted and as more dentists work with well-trained auxiliaries who have been permitted to expand their duties, I am assured that this new manpower resource will do much to enlarge the dentists' productivity to the point at which it will more closely match the national need.

There is also a current interest in utilizing in civilian life the many competent auxiliaries who have been trained while in military service. This is a resource which should not be overlooked in view of the manpower shortage in dentistry.

DENTISTRY IN HOSPITALS

Another "expectation in dental care" arises from the increasing involvement of dentists in hospital programs. There are approximately 7,200 registered hospitals of all types in the United States and of these, about 2,800 have reported dental facilities of some sort. Only about 930 of those reporting dental facilities have had them accredited by the Council on Hospital Dental Service of the American Dental Association.

The enlarging involvement of the dentist in the hospital is evidenced by the fact that there are currently 180 rotating or mixed dental internships and 220 specialty practice programs conducted in 292 hospitals. These programs provide trainee spaces for approximately 1,200 graduate dentists annually.

Yet there is much to be done. A recent survey of hospital administrators revealed that 75 per cent of those responding had dentists on their hospital staffs and that provision for dental service was made in the hospital bylaws. The number on the staff ranged from one to 19. Of the dental departments, 50 per cent were organized as sections of the department of surgery and 20 per cent as separate dental departments. Obviously, the remaining 30 per cent had no formal staff organization for dentistry. About 50 per cent of the responding hospitals provided outpatient facilities while 70 per cent had dentists providing in and outpatient services.

As the role of the hospital as a community health center expands, there is certain to be an expansion of dental activity in hospitals and, by extension, into nursing homes and other long-term facilities. Undoubtedly, the full range of dental services will eventually be made to the hospitalized patient and physicians, dentists and other members of the health team will work more closely in providing a total health service for the hospitalized patient. In this connection, the dental problems of the chronically ill and the handicapped will receive more serious attention and better systems for the delivery of this care need to be developed in close consultation with physicians, hospital administrators and hospital staffs.

The American Dental Association has worked closely with the Joint Commission on Accreditation of Hospitals in order to develop standards for hospital dental services and for their integration into the structure and operation of the hospital.

DENTAL PREPAYMENT PLANS

When the provisions of Medicaid (Title XIX of the Social Security Act) are fully implemented by 1975, literally millions of persons not now receiving dental care will be eligible to receive it through the joint federal-state program. The need to prepay dental care for other segments of the population—as is done for hospital, medical and surgical care—is also a pressing one and is only now beginning to flower into full development.

Today there are approximately 5 million Americans receiving dental benefits under prepaid dental care coverage. Two million are covered by programs of dental service corporations which are organized by state dental associations in a manner comparable to that of Blue Shield. The other three million are covered by programs underwritten by commercial insurance companies.

The growth of dental prepayment is exemplified by the experience of California Dental Service which, 12 years ago, had one contract to cover a few thousand children. Today, it has 196 contracts covering about one million beneficiaries.

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There is a vast market for prepaid dental insurance and the major technical problems involved in marketing such protection are well on the way to solution. James Bonk, of the National Association of Dental Service Plans, says:

Today prepaid dental care is probably the most widely discussed new employee benefit in management and labor circles. Within the last 12 months, the huge national market for health care benefits has turned its full attention to dental care as the next addition to the employee benefit package. The implications of this breakthrough, and the demand for programs and services that it will generate, will be of enormous consequence to the dental profession, to the dental service corporations administering and underwriting the programs, and to the public at large who will be hearing more and more about this new form of coverage.⁴

There are presently 27 active dental service plans in the United States and another half dozen are ready for operation. The National Association of Dental Service Plans estimated that 15 million people will be covered by dental prepayment by the end of 1970 and 50 million by the end of 1975.

ADA NATIONAL DENTAL HEALTH PROGRAM FOR CHILDREN

There is a steady flow of criticism in the professional and lay press that the health professions are always in the ranks of the opposition and never advance proposals of their own to improve the national health under an effective and desirable program. The American Dental Association, on occasion, has been in opposition to federal proposals which it felt did not serve the public health; more frequently, it has supported, or made proposals which would enable it to support, federal proposals designed to advance the health of the nation.

In late 1966 the American Dental Association's House of Delegates approved a comprehensive National Dental Health Program for Children which would launch an organized program for dental

⁴James Bonk, "The Dental Service Plan: an Adventure in Involvement," *Journal of the American Dental Association*, LXVIII (April, 1969), 701.

health on a national basis which would eventually involve all children as funds and resources became available. The program was to be initiated with a series of experimental programs in different parts of the country to determine and design the most effective delivery system to provide dental health care for children. President Johnson acknowledged the need for such a program and the Association's role in developing and offering it.

The initial funding requested for this program was a modest 5 million dollars. On the basis of fiscal stringency, this amount was reduced to one million dollars and subsequently was entirely eliminated. It is a strange commentary that in a time when literally billions are spent for health in this country, the modest sum of 5 million dollars could not be found to initiate a program of prevention and disease control in children which would eventually repay untold millions in healthier citizens approaching adult life.

When this program is finally funded, as eventually it must be, there will be a new burden on a dental manpower and an even more critical need for research and experimentation for an effective delivery system for this segment of our national population.

GROUP PRACTICE

The development of group practice is not as yet widespread in the dental profession. There is no question but that this type of practice needs to be expanded in the near future and will be. Kerr, in his article on the "Organization of a Group Practice" points out the need and the advantages of group practice:

It is apparent that the group practitioner has available to him more economic usage of auxiliary personnel, facilities, and talents of the specialist. He can concentrate totally on the needs of his patient, as others relieve him of nondental functions. In a share expense arrangement he can have available to him the latest techniques and materials. No one can deny the advantage of group consultation on the needs of the patient, as compared to even the finest diagnosis and treatment plan by the solo practitioner. . . . Dentistry still revolves about the

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general practitioner and the group must allow him the responsibility for over-all treatment planning. By group consultation with the specialists and other general practitioners he will provide the best possible care [for the dental patient].⁵

Group practice in dentistry, then, will undoubtedly grow and make this contribution to improving the quality of dental health care for the patient and, at the same time, adding to the profession's manpower resources by the effective use of all types of dental auxiliaries.

CONTINUING EDUCATION

One of the great interests and concerns of the dental profession at the present time is the development of a solid program of continuing education for all practitioners so that they will keep their knowledge and skills freshened in order to provide a better service for the patient. There is a strong movement afoot to require evidence of continuing education as a requirement for the maintenance of membership in local, state and national dental societies. There is also a hard look at building requirements for continuing education into state dental practice acts as a requisite for the renewal of licensure at periodic intervals. Continuing education for all practitioners can, and must, make its contribution to the improvement of dental health care for the public.

CONCLUSION

I will not attempt to summarize the "Expectations for Dental Care" which are set forth in this already too long presentation. John Gardner, in his notable book *Self-Renewal* has done this eloquently not alone for dentistry but for all who are interested in better health, a better nation and a better world:

We cannot return to a simpler world. Much of contemporary social criticism is made irrelevant by its refusal to face that fact. It is true that the pressure and tumult of our society

⁵I. Lawrence Kerr, "Organization of a Group Practice," *The Dental Clinics of North America*, July, 1967, pp. 340, 343.

compares unfavorably with, say, the tranquillity of a village in Brittany. But the comparison does not deal with a choice that is open to us. We must live in the modern world. We cannot stem the pressure for more intricate organization of our economy, our production, our social, political and cultural life. We must master the new forms of organization or they will master us.⁶

The dental profession has a deep commitment to developing and mastering the new "forms of organization" of health services to the end that the public is better served by a better profession.

⁶John W. Gardner, *Self-Renewal: The Individual and the Innovative Society* (New York: Harper & Row, 1964), p. 68.

The Nurse in Future Health Care Delivery Systems

Eleanor C. Lambertsen*

INTRODUCTION

Current issues and trends in health services are a reflection of the nature and magnitude of social change—rapidly occurring changes in science and technology, in social structure, intellectual concepts, and economic and political establishments. The signs and symptoms of social stress are clearly evident in the dissatisfactions of consumers of health service as well as in the changing attitudes of health personnel about the scope and purpose of their work.

If anything significant is to be accomplished, leaders must understand the social institutions and processes through which action is carried out. And in a society as complex as ours, this is no mean achievement. A leader, whether a corporation president, university dean, or labor official knows his organization, understands what makes it move, comprehends its limitations. Every social system has a logic of its own that cannot be ignored.¹

It is my premise that the delivery of nursing services will continue to be an increasingly complex social problem and that social pressures, social forces and social legislation have and will continue to result in action programs for health services—action programs that may or may not be influenced by nurses, physicians, and other “vested” interest groups in the health field.

*Director, Division of Health Service Sciences and Education, Teachers College, Columbia University.

¹John W. Gardner, *The Antileadership Vaccine*, Annual Report of the Carnegie Corporation of New York, 1966.

THE CHALLENGE TO TRADITIONAL ROLES

Traditional roles of all practitioners in the health field are being challenged as is the relevance of the programs of health services for certain population groups and communities. In addition to the demands of increasing numbers of groups of workers, the consumer is demanding a voice and partnership in decisions affecting the organization and delivery of health services, in the coordination of these services, and in determining gaps and priorities in services. "We need a great deal of study and action if we are to see anything but prolonged friction and frustration come out of the growing complexity of increasingly diversified groups in the medical and health fields."² If the health system is to meet the challenges, the physician in concert with health services administrators, nurses, and other health service personnel must assume responsibility as principal architects for accelerating changes which characterize progress.

The crisis today is not one of knowledge. It is a crisis of responsibility and of social philosophy, a crisis stigmatized by inadequacy and unavailability.³

Dr. Philip R. Lee in a classic paper, "Health and the City," presented to a general session of the American Public Health Association in 1968 firmly stated that "we must redouble our efforts . . . that we must accept greater responsibilities than we have in the past, and that we must devote ourselves to a greater effort to correct the inequities and the injustices which exist in our Nation today."⁴ He urges that we start with the Nation's children for "it is the children who will inherit the cities, the nations, the world."⁵ The priority in no way precludes meeting

²U.S. Department of Health, Education, And Welfare, *Report of the Secretary's Advisory Committee on Hospital Effectiveness* (Washington, D. C.: Government Printing Office, 1968), p. 23.

³David Denker, "The Medical Revolution and the Alarming Doctor Shortage: Cultural Crisis of our Times" (paper presented at the installation of Dr. David Denker as President of New York Medical College, New York, N. Y., November 17, 1967).

⁴Philip R. Lee, M.D. "Health and the City" (paper presented to a general session of the American Public Health Association, Detroit, Michigan, November 12, 1968), p. 5. (Mimeographed.)

⁵*Ibid.*, p. 6.

the needs of other age groups but his proposal for a Children's Bill of Rights can well serve as a model for conscious reshaping of our health delivery system. The Bill of Rights represents "a pledge that those who are starting life today, in the slums as well as the suburbs, will have the quantity and quality of health care which this generation in this Nation is able to provide."⁶

First, all children must have the right to be well born.

Second, all children must have the right to needed health care from the moment of birth.

Third, every child must have the right to be well nourished.

Fourth, every child must have the right to grow up in healthful surroundings.

Fifth and last, we must guarantee this Bill of Rights for the Health of Children by making secure the system of health care, by assuring reasonable payment to physicians and other health workers and to institutions so that they can provide for the health of the Nation's children. We must develop the means of meeting the cost of health care for all children, through public resources allied with private. We must make certain that no child is denied adequate health care because of poverty, geography, discrimination, or the failure of the public-private health enterprise to recognize and meet his needs.⁷

COMMUNITY NEEDS

Health care services still fail to reach the masses of the poor, particularly poor Negroes. Low income children are still fifteen times more likely to be defective at birth, three times more likely to be premature, and twice as likely to die at birth. The very high incidence of mental retardation in impoverished population has only recently been discovered. And, although we still have no accurate figures on the incidence of emotional disturbances and mental diseases in poverty stricken areas, preliminary evaluations indicate that they are very high. In addition millions of Americans are now suffering from malnutrition. A conservative figure for

⁶*Ibid.*, p. 7.

⁷*Ibid.*, pp. 7-9.

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the number of people in this Country who are undernourished because of poverty is put at 10 million.⁸

It is a well known phenomenon that members of low socioeconomic families tend to seek medical care only in emergencies or in the case of severe handicapping conditions and that the type of care they receive depends upon what is available in the area in which they live. Poverty and poor health are directly related and any approach to innovative measures in the organization and delivery of health care services will require a massive assault upon the entire culture of poverty in American culture.

Total community health includes mental and physical ailments, environmental hazards (or dimensions) of health and the social components of both problem areas. Demographic variables such as age and sex distribution, concentration of population, geographic and cultural differences, varying socioeconomic status influence each of the health problem areas. Projections can be made for many of these variables on both a national and local level.⁹

Herman E. Hilleboe groups the problem areas of Physical and Mental Disorders under six broad headings and states that such groupings can prove useful as a program planning framework:

Acute medical and surgical illnesses requiring hospital care and associated institutional services.

Chronic illness, especially among older people: e.g., heart diseases, cancer, cerebrovascular diseases, arthritis, diabetes.

Mental disorders, including illnesses, retardation, alcoholism, and addictive disorders.

Maternal and child health, nutrition and family planning.

Infectious and parasitic diseases.

Accidental deaths and injuries: occupational diseases and hazards.¹⁰

⁸National Urban League, *A Call to Action: Recommendations on the Urban and Racial Crisis* (submitted to President Richard M. Nixon by the National Urban League, January 20, 1969), pp. 38-40. (Mimeographed.)

⁹Herman E. Hilleboe, "Public Health in the United States 1970's," *American Journal of Public Health*, September, 1968, p. 1590.

¹⁰*Ibid.*, pp. 1590-1596.

In addition to the physical and mental disorders there is the added dimension of environmental health.

Dr. Leona Baumgartner during the White House Conference on Health held in November 1956 stated:

The web of social and physical chaos, which is largely the product of our amazing successes in a free society of expanding science and technology, is the part of health about which the least is known. We are victims, as it were, of a "mindless power system"—pollution, pesticides, drugs, new tensions, more leisure, foods, new ways to protect against disease, powerful machines that change our landscape and our lives—changes that affect each of us whether we know it or not. How are we to live healthily in this new world? Herein lie problems for which there are few definitive answers and for which we need to invent solutions; problems which involve a vast array of fiercely conflicting economic, social, and political interests; problems that are constantly changing with new scientific discoveries.¹¹

Community needs for health services must be determined through a systematic scheme of health program analysis. "Nothing less than a massive reorganization of the entire health services of this country will free us from the administrative morass in which we find ourselves mired."¹² Barriers to the organization and delivery of comprehensive health services such as vested interest institutions, vested interest providers of care, legislative restrictions, etc. must become matters of social action programs. The late Senator Robert F. Kennedy clearly depicted the problem we face at the community level:

Successful social innovation . . . new kinds of schools, health systems, family planning programs, persons, or mental health facilities . . . cannot be developed without the simultaneous development of new ways to manage them, to organize them, and to relate them to the community for whom the service exists and whose needs it seeks to meet. Existing organizational forms are often over-centralized, over-bureaucratized, isolated, unresponsive, exploitive of workers and clients alike, stifling places

¹¹Leona Baumgartner, "Health Protection," in *Panel Summaries of the White House Conference on Health, Washington, D. C., November 3 and 4, 1956* (Washington, D. C.: Government Printing Office, 1966), p. 12.

¹²*Ibid.*, p. 1605.

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in which to work, wasteful, cold and rigid. This is in large part the explanation of their failures.¹³

ESSENTIALS OF HIGH QUALITY MEDICAL CARE

Essentials of high quality medical care and comprehensive personal health care service involve community planning that begins with the individual, and extends in one direction to the community and its environment, and in the other to the health care personnel and the environment in which they operate. The needs of individuals are:¹⁴

1. Prenatal examination and counseling in an ambulatory facility served by specialists in internal medicine and medical specialties, especially geneticists, as well as obstetricians and appropriate health personnel.
2. Organized and efficient prenatal care in an ambulatory facility served by specialists in internal medicine, cardiology, endocrinology and metabolism, neurology and psychiatry, as well as a range of appropriate allied health personnel.
3. A facility for monitoring growth and development in infants and children.
4. A program for health maintenance and protection against disease through vaccination, health counseling, and so on.
5. A program for periodic health inventory and early detection of disease.
6. Definitive health care for the sick of all ages, ambulatory and in bed.
7. Facilities for obstetrics, surgery and specialty care manned by appropriate professionals, including nonsurgical specialists and allied health personnel.
8. A facility for determining behavioral parameters—that is, an individual's way of life, attitudes and aspirations. There should be an assessment of the individual's current intellectual ability.

¹³Robert F. Kennedy, "Government, Jobs and New Careers," *Up From Poverty*, edited by Frank Reissman and Hermine I. Popper (New York: Harper and Row, 1968).

¹⁴John C. Neff, ed., *Health Center of the Future: Problems, Plans, Prospectives* (New York: French-Polyclinic Fund, Inc., 1968), pp. 8-9.

9. Facilities for convalescence, rehabilitation and reconnection with the program of monitoring the healthy.
10. Facilities for chronic care tailored to the nature of the disability and closely associated with the preceding need, in order to tap personal resources and build personal satisfaction. Ambulatory, temporary, "hotel type" accommodations and bed care should be available.
11. Arrangements should be such that access to medical and allied health personnel can be accomplished and their roles coordinated with a minimum of red tape.
12. Each person should have a "health passport" with up-to-date information on his past medical history, including all test and findings, normal or otherwise.

The nurse in the future health care delivery system will function in all of these essential services.

THE NURSE, PHYSICIAN AND HEALTH SERVICE PERSONNEL

It is my premise that the most significant trend today is the attempt by physicians and nurses to define practice in terms of the knowledge, judgment, and skills required for safe, efficient, and therapeutic services to individuals, families, and selected population groups—a trend that will result in many changing patterns of practice and many changing relationships in, and among, the health occupation groups. The spectrum of health services requires an effective, efficient, and coordinated health team capable of providing services in a wide range of health institutions, a health team that provides comprehensive personal health services of a high quality for all people.

The nurse and the physician are the nucleus of the health team and the partnership for health developing among physicians and nurses represents a social and professional maturity as well as recognition of the significance of the interdependence of providers of health care services.

Nurses participate as members of the health team in all phases of a comprehensive health program. For the ultimate goal of the

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nurse as well as of the physician and other members of the health team is to maintain and/or achieve that degree of health attainable for and by an individual or particular social group. But the very nature of a comprehensive health program implies a relative mix of health services and a mix of health service personnel. It is the nature of the results expected that dictates the types of services and types of personnel required—personnel responsible for assuming primary, secondary or tertiary roles.

The distinctive nature of the therapeutic relationships of physicians and nurses throughout the historical development of medicine and nursing has tended to complicate any logical analysis of nursing as a separate or distinctive discipline. I hypothesize that the interdependence of medicine and nursing is such that the areas of similarity of function of physicians and nurses will be greater than will be the areas peculiar or distinctive to either. The trend has been evident in the past and will become increasingly evident in the future.

Perhaps progress would be achieved through effective health teams if all of the health disciplines appraised their potential contribution on the basis of primary, secondary, and tertiary or supportive roles rather than struggling to define independent functions for themselves and dependent functions for others.

For health care services require a delicate balance of talents of increasing numbers and varieties of health care personnel. It is hypothesized that in a program of comprehensive personal health services the roles of health personnel at any given time may be altered by the very nature of priorities for these services.

A *primary* therapeutic role is assumed by that health care professional whenever the therapeutic regime dictates intervention and the intervention is essential to the health and well-being of individuals, families or special population groups.

A *secondary* therapeutic role is assumed by that health care professional or other supportive personnel providing services vital to sustaining the life or life style of the individual, family, or special population groups experiencing a therapeutic regime or roles supportive to the therapeutic regime.

The *tertiary* role is assumed by health service personnel who provide services supportive to the primary and secondary roles of those directly concerned with therapy.

During the act of surgery, for example, the surgeon assumes the primary role, the anesthesiologist assumes the secondary role, and the circulating nurse the tertiary role for the role demands competence in predicting the needs of the surgeons and anesthesiologist through the observation of covert signs and symptomatic response of the patient to surgery. This example is not intended to negate the significance of any of the roles assumed in the total regime of a service but rather to illustrate the dominant nature of the requirements for skilled personnel, at a given point of time, in a therapeutic regime.

NURSE PRACTITIONERS

The occupation of nursing in the future will encompass two distinct groups of nursing service personnel with clearly defined areas of practice:

1. Practitioners of nursing capable of developing innovative structures of patterns of practice, and
2. Practitioners of nursing capable of practicing within the framework of existing structures or patterns of practice.

Nursing practitioners similar to medical practitioners will be assisted by a cadre of supportive personnel who will serve as an extension of the nurse for selected, delegated, and circumscribed areas of nursing care.

Nursing is a dynamic, therapeutic and educative process for meeting the health needs of society. The nurse may be perceived as the most sensitive of human monitors capable of predicting actual or potential interferences with normal life functions and processes and through the processes of assessment of the responses of people to stresses associated with potential or actual health problems, intervening or initiating discriminative action. The nature of nursing implies that the nurse, as the advocate of the

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individual receiving health services, is a sustaining force in assisting the individual or family cope with the stresses of potential or actual illness or disability. Nursing practice encompasses health teaching, individual or family counseling, case finding, care supportive to life and well-being therapeutic intervention, and restorative services.

Nursing care ministrations include maintaining or sustaining a therapeutic milieu and providing care which assists people attain optimal comfort, rest, sleep, activity, stimulation, and diversion; assisting people attain maximum independence for their health care; and providing a compensatory function when people are unable to carry out vital life processes such as eating, breathing, elimination, and ambulating on their own.

It should be noted that the components of nursing practice are not necessarily distinctive to nursing. For the physician and other health service professionals have similar areas of responsibility inherent in their practice. It is the overlapping areas of components of practice that are disturbing or confusing to those searching for definitive definitions for health service practitioners. I predict that in the future the areas of similarity of function of physicians and nurses will be greater than will be the areas peculiar or distinctive to either. Physicians and nurses are well aware of the nurse midwife-obstetrician areas of similarity of function and the controls or standards which differentiate their practice.

The requirements for health services preceding, during, and following pregnancy serve to illustrate a functional model of nursing practice equally applicable to other phenomenon. Nurse midwives and public health nurses are assuming major roles in family planning clinics. During the prenatal period, the nurse may assume primary responsibility for health counseling and health maintenance for the individual experiencing an uneventful pregnancy. If a potential or actual deviation from the normal course of pregnancy occurs, the services of an obstetrician are indicated. During labor the nurse monitors the patient's progress, sustains the patient when indicated, and employs appropriate measures of intervention. The services of an obstetrician are indicated if there is deviation from the normal or anticipated course of labor. The nurse midwife is capable of the management of a normal or uneventful

delivery whereas the obstetrician is indicated if there is any potential or predictable interference with the delivery.

Note the distinction in requirements for the skill of a nurse, a nurse midwife, or an obstetrician. Supportive, sustaining, or therapeutic services for the pregnant woman are dictated by the degree to which there is deviation from the normal life processes or deviation from a predictable physiological response.

Similarity in the roles of the nurse and physician in coronary care may be observed in the care of patients following myocardial infarction. For the management of the regime of the patient following the acute phase of the illness and prescription by the cardiologist of the medical therapy is clearly recognized as an area of nursing practice.

Psychiatric nursing has developed to the extent that it is possible to delineate this area of specialized clinical nursing practice. Direct nursing care functions include individual psychotherapy, group psychotherapy, family therapy, and sociotherapy.

Increasingly nurses in the care of children are and will continue to assume more responsibility for the management of "normal" pediatric care. Nurses in public health agencies and visiting nurse services have a long heritage of providing "normal care"; it is only recently that the case load has shifted increasingly to the care of the ill and disabled in the home.

I predict that the nurse in the future health care delivery system will assume responsibility as a primary health care practitioner for community health services directed toward health maintenance and protection against disease and disability; that the nurse will be the primary health care practitioner in the therapeutic regime of individuals with chronic and long term illness; that the nurse, as a clinical specialist, will increasingly assume a colleague role in her relationships with medical specialists in the provision of therapeutic regimes for individuals with acute medical or surgical illnesses.

Nursing practice will continue to be influenced by the nature of the requirements for health care services rather than by the

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institution providing these services. Differentiation by place of practice such as hospital nursing, public health nursing, school nursing etc. will be replaced by adjectives more descriptive of the nature of nursing practice.

It should be quite evident that the collaborative relationships of physicians and nurses are crucial to any comprehensive health program. But it should be just as evident that the physician recognizes that the collaboration of nurses with physical therapists, nutritionists, occupational therapists, speech therapists, and other therapists is just as crucial. Restorative, rehabilitative, or therapeutic services of any specialty group are dependent upon constant reinforcement. It is the nurse's sustaining relationship with the patient and family, and the nurse's primary role in assisting the patient to cope with stresses of living and disability, that assure reinforcement.

Neither the physician nor physical therapist, for example, can expect effective therapy if continuity in the therapeutic regime is not provided for the patient in his life on the patient unit. The nature of nursing implies that the nurse is the patient advocate, and her distinctive relationship with the patient provides for opportunities of assessment with, and for, the patient that are not within the realm of those providing intermittent therapy for one functional disorder or disability.

The central role of the nurse in the therapeutic regime of patients in hospitals must be understood and accepted by physicians as well as hospital administrators. For physician's difficulties in adjusting to, or adjusting, the hospital system are directly proportional to his ability to perceive the nurse as a colleague with a significant contribution to make to patient care and patient welfare. Nursing as a profession defies rigid definitions in terms of isolated tasks or activities. Task orientation is obsolete for nurses as well as for physicians.

Nurses are concerned with the totality of response of the individual and the interdependence of the physiological and psychosocial responses to potential or actual interferences with life processes, life functions, and life style. The resilience of nurses in extending or altering the scope of their practice in response to

advances in science and technology is clearly evident if one examines the phenomena of nursing care in the modern rather than traditional health service setting.

CONCLUSION

My recommendation is that physicians, nurses, and other health service personnel systematically examine the phenomena of care and, from the resulting analysis, predict and project the needs for expertise and for changes in traditional roles and relationships. For society cannot, and will not, tolerate professionals who are reluctant to face the fact that the nature of requirements for health services and requirements for talented personnel have been altered by a quite different set of social needs than those for which the health systems were originally designed.

I predict that our success in insuring that the health care system will be organized to assure appropriate points of entry into, and continuity of, health care services and that every citizen will have ready access to quality health care will only be as effective as the health professionals permit. For I perceive the greatest barrier to be that of outdated and outmoded perceptions on the part of the various health professional groups of their role and function. Institutions are people housed in a certain facility and institutions will change only as those primarily responsible for rendering care collectively examine and appraise obsolete traditional roles. The evidence that these roles are being challenged by society is quite apparent. Quite frankly some professions will become obsolete and be replaced unless they are more responsive to changing needs for services. Nurses are and will become more responsive to changing needs for services. But the nurse in the future health care delivery system will be a product of the future rather than a reflection of the past.

Medical Education In The Future

Matthew F. McNulty, Jr.*

I would like to dwell on three points in this presentation.

The first is "What is the Association of American Medical Colleges?" In a collective sense the Association is medical education through its organized activity. The AAMC, as it is known in the language of today, is an old organization, having its origin in 1876. It existed with some enthusiasm for a time, then it lapsed for a time, had a resurgence era and then a "holding" period with a gradual but steady developing vigor during 1950-69. It was very active, with the American Medical Association in the early decades of this century in sponsoring the Abraham Flexner investigation or review of medical education.

I think I can say objectively that the AAMC is a relatively small but prestigious organization. It has always been small and it will probably always remain so in relationship to the organizational universe we consider when we think of associations such as the American Medical Association, the American Management Association, the American Hospital Association, the American College of Hospital Administrators, and other organizations of that type. For many years, it was totally an association of approximately 50 medical schools. It is now an organization of which just one Council numbers approximately 100 medical schools.

The AAMC underwent, what I would call, a transformation of considerable magnitude. Every chance I get, I like to compliment the AAMC from a public podium. It is known as a deans' club. That's what it was. That is not an unkind observation. If you are a member of the American College of anything, you are in a club.

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Members of the club frequently get together to exchange views; to do all the other things that associations do, in terms of identification and improvement of the body of individuals. The Deans of Medicine gave up control of "their club" in order to broaden the organization by giving full membership to teaching hospitals and faculty members. Those of you who are steeped in academia know that the teaching hospital administrators are reluctant to look other groups in the eye and let them take over any control. Yet that is essentially what Deans of Medicine did to their everlasting credit. The resultant internal contest has been interesting, purposeful, and effective in terms of the vitality and increasing effectiveness of the AAMC.

Effective at the annual meeting in Houston last October, the Association of American Medical Colleges constituted a governing body that now has representation from three groups. Now I emphasize this, because I think that you will see in your careers, and certainly in the careers of our current hospital administration students they will see more and more of the AAMC in terms of medical education, and with other specialty groups in terms of all of the education that takes place in the hospital setting.

By that I don't mean that the American Dental Association or the American Nursing Association is about to change its role. But all these disciplines, in the sense that they sponsor a specialistic education viewpoint, do so largely in a hospital setting and these are the teaching hospitals which I specifically represent, and which are now incorporated in the Association of American Medical Colleges. We hope that all health science related activities will combine in some way to represent a force for educating manpower, consonant with, and in harmony with, all other existing forces.

My second point is a word about the Council of Teaching Hospitals—one of the three groups that are within the AAMC. (There is the Council of Deans, now approximately 100 deans; a Council of Academic Societies, representing some 32 academic societies with literally thousands of faculty members; and the Council of Teaching Hospitals.) The Council presently consists of 350 members. The total universe that might be available for the membership is only about 400 under the present criteria. These present criteria are two fold: (1) Nomination by a dean of

medicine, with concurrent verification that the nominated institution is a major teaching hospital for the medical undergraduate education program of that school; (2) The hospital can nominate itself and that self nomination has to meet a criteria of having an internship program and three residency programs out of a prescribed five programs. Those prescribed programs are medicine, surgery, obstetrics-gynecology, pediatrics, and psychiatry. So when one applies those criteria to the universe of some 1400 hospitals that are carried in the Green Book of the American Medical Association, the number of eligible institutions quickly reduces.

Put another way, from the total number involved annually in the National Intern Resident Matching Plan, the institutions (350 hospitals) I mentioned take approximately 75 percent of those interns, the other 25 percent are spread among a variety of hospitals on the basis of a small number of interns for each such hospital.

My third point, and the one on which I shall concentrate most in this informal presentation, concerns what the AAMC is besides an organization. It represents medical education and health science education in terms of the need of society. It stands for the ability of these institutions to meet, to match, and to correspond to the needs of society. For instance, at present, medical education, not unlike all other higher education, is in great difficulty. How could this difficulty be articulated to the public so that societal priorities may be objectively determined? This is a role for the AAMC.

There are a number of medical education programs that are in financial difficulty. The cost has become so tremendous that the ability to finance this sort of an operation from a private university type of program becomes increasingly difficult. So one thing that the Association stands for is an attempt to come to grips with that sort of a problem. The Association has come to grips with the problem that this country is short 50,000 physicians in terms of various estimates. The most prevalent estimate—and I think one of fair accuracy—is that 50,000 more physicians at this point in time could be economically, effectively and rewardingly used in terms of the demands and need of society for health care.

How can we come to grips with that particular type of problem? How can we come to grips with the problem of all sorts of shortages on the other end of the manpower spectrum—the shortage of

faculty members, needed urgently to sustain and expand the medical education system? How can we promote additional medical schools? How can a curriculum be examined on more than a one-by-one school basis, on a national basis, in terms of shortages, in terms of narrowing the span of curriculum time, in terms of relevant material? This is another activity of the AAMC, its Teaching Hospitals, its Deans and its Academic Faculty members—and in the reverse order of this listing. What are the needs of society for various types of practitioners? Here we join with other professional organizations in trying to look at these types of problems.

For the Council of Teaching Hospitals, one of the primary aims is to accomplish an accommodation with deans, faculties and other involved university officials in terms of the governance of hospitals and medical centers. Many of you know that the governance of any type of large enterprise structure in relation to the various intra-structures is always a dynamic situation—the General Motors Corporation versus the Pontiac, the Chevrolet or the Cadillac Divisions. Constant competition builds better automobiles for the market place. However, for a medical center, what accommodations can be made for strong forces for a common good, operating for the same objectives, but generally at different speeds with different emphasis at different times and many times with an entirely different style of seeking the end objectives? One of our challenging goals is to bring into closer relationship and program purposes, objectives and scheduling priority the activities of the schools of medicine, schools of dentistry, schools of nursing, and the other elements that make up large medical centers.

What is being done about these problems in medical education? The AAMC has just completed several major endeavors that will have a long-time application. First, a major assembly of leaders of this country, and countries abroad to examine curriculum was conducted in Atlanta, Georgia, in late 1968. Here curriculum content was examined from everyone's viewpoint. Is it necessary to start at the freshman year and move onto the fifth year of residency? This total spectrum, in thoracic surgery for example, means four years of undergraduate medical education plus one year of internship and then five more years of residency education. So roughly ten years of education beyond college must be completed before the thoracic surgeon is really out on his own in terms of totally unsupervised performance on behalf of society.

Are there ways of speeding up this pattern? Instead of the four years of undergraduate general education followed by four years of undergraduate medical education, the eight-year span might be compressed to permit the student to move up from the second year of undergraduate baccalaureate education into medical education; and the sum of these two at the end of the spectrum of six years be rewarded by both the baccalaureate and doctor of medicine degrees. This same sort of an accoridian type compression might be introduced in terms of moving from the third year of undergraduate medical education, bypassing internship altogether, into specialized education-training.

Also considered was: "What can be done to create additional types of practitioners in terms of family practice?"

A second inquiry being encouraged by the AAMC related to the question: Where should responsibility for medical education totally rest? You will recall that the Millis Commission suggested that there be established a Commission on Medical Education within the AMA. This proposition has not progressed too far but it is obvious that somehow this spectrum from freshman year in medical school to the 5th year of a specialistic medical residency needs to be more of a continuum and less of a separate entrepreneur type of activity. Presently a free standing hospital relates only to the specialty examination group that comes to look at any particular discipline—medicine, surgery, neurology, dermatology, allergy, or whatever it may be. The only relationship that it bears to undergraduate medical education on the part of the separate free standing institution is the examination by the peer group of that particular specialty as to whether that specialty meets specialistic certification standards.

Isn't there some way that medical education can be looked at as a continuum? From this inquiry plus other developments now in progress will probably develop some form of Commission on Medical Education.

Now whether these things come to pass, of course, will call for a great deal of understanding, a great deal of interest, and a great deal of acceptance by the universe to which one would suggest that they be applied. In any event it would be my conviction and my prediction that some form of body is going to come into existence that's going to start to look at medical education from

the time the individual enters into undergraduate education, baccalaureate education, to the time that the thoracic surgeon finishes his last of five years of residency. There will be examined this total spectrum in terms of what our society really needs, how this profession of medicine can best meet those needs, and really what are the priorities, because the ideal will never be realized.

Another inquiry relates to facilities. What to do about facilities? This is something that the Association is presently puzzling about. I would predict that we are going to see a great deal of medical education accomplished outside of the walls of the present institution-base. The institution base now being the school of medicine and the teaching hospital. This move is even now being accelerated by the demands of a society for increased supply of health care. Community groups are more and more inspecting the universe of what is available to provide health care. I think we are going to see more and more calling upon medical education to produce the practitioner for the ghetto of the urban area and for the poverty pocket of the rural area—a demanding movement to outside of the present institution base.

There are two compelling forces, one, education of more medical students and need for more opportunity to educate them, and two, the cry by society that you, the teaching hospitals and the medical schools, are large, you have a stable base, you have financial resources, you have manpower, you have leadership ability, therefore, you must pick up some of the problems that face society.

In this period of evolution, if not social revolution as I have only briefly cited what about the practice of medicine. What is this going to be? Perhaps others have spoken of it. I am certain that Dr. Wilbur has, because he has many thoughtful convictions in terms of the role the physician should play as to institutional management and leadership responsibility in society. I regret that previous commitments did not permit me the pleasure of enjoying Dr. Wilbur's presentation yesterday. I certainly would share many of these ideas and ideals of Dr. Wilbur and of the American Medical Association. I do think we face the problem though, of a body of knowledge becoming more and more extensive with the challenge being tremendous to the ability of any one mind to accumulate all that needs to be known about any particular syndrome or any particular specialty. The ability to be many things is going to be very limited.

In terms of the management functions in the health care system I look to you the preceptors and to the students of today to become the management experts of tomorrow. I think we are going to find more and more management experts engaged in the delivery of health services. This does not mean a lessening of the role of the professional private practitioner. However, I don't see any alternative for more management talent and involvement. Certainly the private practitioner is going to be totally engaged in learning as much as he can about whatever element it is of health care that he is going to render. Management itself is going to be an equally sensitive, equally intensive, equally voluminous body of knowledge that's going to have to be mastered.

Parenthetically, may I indicate that this morning I was pleased to learn that at this Army Medical Field Service School there will be established a Center for Health Services Research. I think this is tremendous. I hope that when this is done, it will involve civilians in many ways, because the military, at least in my personal experience, have accomplished tremendous tasks. You have, as an example, established a model of total evacuation and caring for an entire military-civilian population in Vietnam. We have not approached that model in U. S. civilian life. Any place you go you can spot segments of our U. S. population that don't know how to get to what I call, or used to call, the company aid station. That's probably outdated language because there is a communication gap here. I apologize, but you see I have to go back to 1946. But in the military by the fifth day every private knows where to go for health care.

I predict we are going to see many strange forms of medical education, in fact the challenge to you and to me and to the Association of American Medical Colleges and other groups is to meet these demands and needs of society without, at the same time, getting into the type of production system of physicians that we had prior to Abraham Flexner's investigation. I think we are going to see many medical schools that will start independent of universities, independent of any other academic association because the need is so urgent. Thus, a real challenge is going to increasingly develop as to how to increase the output through increased enrollment in existing schools, increased number of schools and yet still maintain a quality for which this country has become famous

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and for which the population of this country quite properly is looking and saying, "How do I get my share of that quality graduate in terms of my needs for health care?"

We are going to see a proliferation of various types of paramedical or allied health science workers before the pattern will become fixed as to what is the "best" method. There is going to develop a maze of manpower that one is going to have to sort of weave through in terms of what is most effective. It is not going to be any single pattern because what is effective in San Antonio may not be effective in New York City, as an example. Here again I think you in the military service should do a great deal of preaching; you have done and can do much more model setting, because in what you do in the military service the pattern is fluid—your educational process for medical department enlisted personnel is tremendous example. Is this a pattern that might have application in the civilian type setting?

Management in all phases of health science education, research and patient care is going to be, in my opinion, the largest single challenge in the years ahead. We now talk of the conglomerates that are coming into being in our industrial, commercial and agrarian society. The small farm is almost gone, that family type of farm that many of you knew and that I knew. Of course, we saw the power companies move into the conglomerate system some decades ago. We now see brokerage houses and professional partnerships incorporating as national activities instead of organizations as five or ten senior partners. I look for hospitals to develop the same or similar patterns so that we would have bigger and better hospitals with those hospitals having their extensions in some way or other into every area of community need rather than having the underfinanced, poorly staffed, overextended 50 or 100-bed hospital at every crossroad.

Now this latter development is not going to come tomorrow, it is not going to come easily, but I think it is going to come in the same way that it has come in the military. You still have your small hospitals but they are tied very effectively into an evacuation chain. If the difficulty on the battlefield is such that it can't be taken care of in Vietnam, there is no waiting there, there is no pride of ownership, there is no community spirit, there is no

benefactor who says that is my hospital. There is an aeroplane or some other method of transportation, which takes the patient immediately to the next appropriate point in the chain of evacuation.

This concept just mentioned is needed in civilian life, it is needed badly and it is going to take management skills in terms of documenting the validity of the concept, creating the concept in terms of principle and substantive detail and then it is going to take articulate, vigorous, and often frustrating types of experience to actually, if you will, sell the concept, the principles and detailed operating practicalities. This needs to be done, this is where I think society will judge as to whether we are a profession of managers and by "we" I am including all those in the management activity. I make no distinction between the manager who happens to come from the discipline of hospital administration, a manager who happens to come from the discipline of medicine, a manager who happens to come from a discipline of dentistry, nursing or any other discipline. You name it, I am talking of those who understand management principles, management skills, management concepts and the humanistic qualities of leadership.

Now, unless we are able to do this, everyone points to the dire results. In some part these predictions are valid. As an offsetting influence I urge that each of you here today as faculty, preceptor faculty and student join the "changing world" and bring your system management leadership talent to assist in demonstrating that this country can continue to have free enterprise health care—but free enterprise health care that meets the needs of the citizens who, as you know, are more and more demanding it.

Many years ago it was Disraeli who said "That health of the people is really the foundation upon which all their happiness and all their power as a state depend;" and Issac Walton said "Look to your health; if you have it, praise God and value it next to a good conscience." In good conscience we, as management leaders, need to put all of our wisdom to the needs of society so that these expectations can be met; and can be met within the type of system that we would like in relation to our traditions and present accomplishments and in relation to our future needs.

Professionalism In Health Care Administration

Richard J. Stull*

The time has come, in my opinion, when we must accept the fact that administration in the health care field, in the truest sense, is professional. The wearying debate on this subject, which, as you know, spans several decades, has become irrelevant—little more than an academic exercise. Certainly a majority of the practitioners in our field have demonstrated convincingly that in the discharge of their responsibilities they are performing at a level that satisfies the hallmarks of professionalism. Less appreciated, I feel, is the fact that this has come about because of a curious phenomenon—it is not the result, mind you, of an omnibus Master Plan: environmental forces of enormous complexity have shaped this development. In other words, and at the risk of oversimplification, pressures at work requiring new responses in administrative functioning, to a considerable degree, have made professionalism a requisite for effective performance.

But, as I say, professionalism is no longer an issue of consequence. What is most important now, I believe, is to concentrate on the solution of the many new and difficult problems that are being created for the health field by the accelerated advances in science and technology and the consequent changes in the characteristics of our social environment. Success in these endeavors, in my judgment, makes it imperative that we seek to attract, encourage and develop the kind of specialized and executive talent that is—and increasingly will be—required to cope effectively with the complexity and magnitude of these problems.

All discernible trends and the most prudent predictions suggest compellingly that tomorrow's executive in the health field will have

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to be a virtual paragon of performance in the solution of problems, beyond the grasp of many of those recognized as professionals today. Indeed, it appears that tomorrow's health executive will have to perform astonishing feats in the management of health affairs in much the matter-of-fact manner that today's physician—by yesterday's standards—performs miracles for his patients.

I believe strongly that professionalization of the health care administrator has been and will be the process most influential for achieving the fulfillment of these expectations. My remarks of today are directed to this point.

FORCES AFFECTING FUTURE EXECUTIVE FUNCTIONING

A number of significant forces already operating in our environment of health affairs are dramatically changing the nature of administrative practice, requiring new leadership roles, and subtly molding the character and style of tomorrow's executive. Let's look at a few of the most important of them.

First of all, there's the introduction of the principle of equal access of health services for all people, regardless of their ability to pay and, to some degree, of their place of residence. Health care has come to be considered a basic human "right." In fact, public debate on this philosophy is over; it is a question of means—not ends. The acceptance of this principle would seem to establish quite clearly the overriding motivation for executive response: maximum service to meet the public's demands.

Secondly, technological development has opened up broad new horizons. But, at the same time, it has created—and this will continue—vast and new expectations from our population. These must be understood clearly. And they must be met by applying new knowledge to the solution of health problems in a manner that will benefit all society to a degree commensurate with costs. This must be done in an environment that is not only changing daily in its characteristics but is replete with conflicts on the purposes and values of health services, differences of opinion about which services are most important, most urgent or most worthwhile; and, differences on what can be done most effectively or

most economically. In such a maelstrom is centered the administrator, his executive ability challenged to understand and cope with these divergent social, political, scientific, and economic aspects of health care and their consequences.

Third, specialism, which traditionally accompanies scientific and technological advances, creates complexity, interdependence and the need for the development of a more formal system of cooperative working arrangements. Here again, the administrator faces another challenge. Interdisciplinary cooperation on a large scale among high level specialists requires of him the cultivation of much greater understanding and confidence, an awareness of new concepts of planning, and the application of more dynamic techniques of management. The development of a sensitivity and tolerance for the various disciplines that comprise the total health care task force and for their separate contributions to over-all successes are of the utmost importance and necessitate skillful communication and the establishment of a climate conducive to planning, organizing, and effective productive working relationships.

Fourth, the effective delivery of health care is evolving as a cooperative system, one which combines a large number of sub-systems; service programs, supporting service programs, resource development programs, financing programs, management programs, and an economy of involvement for all parties concerned. This development has generated the need for an over-all structure of management and planning which may be defined as a hierarchy of autonomies. It means that we cannot manage our expanding technology unless we work together more effectively, and it requires new forms of cooperation and of interdisciplinary, inter-institutional, and inter-agency involvements. Therefore, it would seem that innovation in the organization and management of health services can no longer be an accidental or random occurrence. Rather, it must be a planned and purposeful management activity, rooted in strong programs of research, special studies, experimentation and development.

Fifth, the environment in which managerial operations occurs now includes business technology and the use of automated equipment of rapidly rising sophistication, producing more and better information faster and drastically accelerating communications.

This necessarily creates the need for faster action, quicker decisions, and more precise communications. It means, in short, that the human machine—the practicing administrator—will have to be tuned up to cope with the advancing technology of tomorrow.

Further, he must recognize that these are only tools to enhance effectiveness. Ever present is the major problem: people, characteristically unpredictable in their reactions, and who rarely respond accurately to scientific law or formula. Most important will be an understanding and use of the scientific approach and method for the solution of management problems.

Finally, and sixth: public policy with broad ramifications has emerged in the health and welfare fields as a reflection of the aspirations and frustrations of the people in search of solutions to problems unsolved by voluntary efforts. They have turned to the government for assistance. While they've benefited, there has been the concomitant price: a mounting multiplicity of regulations. For the lesson comes slowly. They fail to recognize that if we are committed to the ideal of health and welfare under conditions of liberty we must accept the fact that successful and acceptable solutions for our problems will not come through government edict or legislation. Rather, what is needed is a compound of the energy, initiative, ability and character of the people in a joint venture with government. This will take imaginative thinking and bold initiatives on the part of the leadership from among those who serve, those who need help, those who finance, and those who govern.

The implications, then, of the challenges being offered on these six major fronts leave no doubt that the health care executive, the administrator, the professional of tomorrow will have to be a virtual superman.

HEALTH CARE ADMINISTRATION: TASK FORCE OF A SHARED LEADERSHIP

Now, let's be realistic! It's almost impossible for any one individual to possess in depth all the skills, talents, knowledge and competence necessary to solve the problems identified in this

description of the forces at work changing tomorrow's environment. Executive management, therefore, must be supported by specialized line and staff skills from many fields and disciplines and in an operational structure conducive to effective performance. Furthermore, in today's and tomorrow's arena of health affairs, effective institutional response to public expectations requires superlative collective effort and harmonious action from community groups, boards of governors, the medical profession, administrators and their representative associations, and the host of other agencies all involved, directly or indirectly, in the planning, delivery, financing, and management responsibility for health care.

What I am suggesting is that the resolution of our problems in the health field requires a "task force"—shared leadership—a permanent alignment of all the forces involved in the provision of total health care, bonded together by a commonality of purpose, a singlemindedness which transcends the separate organizational, professional and personal interests and motives of all who are involved in achieving it.

Therefore, we have a stake and a role to play in attracting, developing and encouraging health care executives for a variety of organizational and operational settings. These must be executives who possess the knowledge and skills of modern, effective, managerial functioning, who understand the unique characteristics and purposes of their operational enterprise, and who are attuned to the changing social, scientific, professional, economic and political developments of the times—truly enlightened progressive and aggressive leaders.

THE PROCESS OF PROFESSIONALISM

As I suggested earlier, it is my firm belief that professionalism is the process most essential for achieving our goal—for welding the many divergent forces into a unified whole capable of meeting the demands for broad health care in a workable system. Since hospital administration and executive performance in this institutional setting are of most immediate concern to you, I shall limit my remarks to this area. There's merit to this, too, because it is the focal point of distribution for a major share of medical

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services. Furthermore, the challenges and responsibilities related to its operations are illustrative of those in the broad spectrum of health services. Most important is the fact that in the health care administration field the process of professionalization had its beginning in hospital administration.

As a point of departure, I like to quote a statement which I made a year ago. It is my analysis of what constitutes an effective administrator in today's environment.

I believe he needs a combination of skills augmented by certain personal traits. Basically, the effective administrator must have the following: skill in recognizing, anticipating and solving problems (dependent upon analytical ability); sound judgment; capacity to accept responsibility and make decisions in the face of uncertainty; breadth and flexibility of mind and imagination; skill in developing and maintaining effective organizational relationships; skill in functional programming and planning; skill in interpersonal relations; skill in sound financial management; skill in negotiating; skill in communicating.

Besides these skills there is a high order of need for a more sophisticated command of analytical tools, capacity to understand and deal with all aspects of our external environment, including our social and economic systems and the political process, and, more than ever before, an ability to cope with rapid change. Equally vital is the knowledge of the art of human persuasion and an ability to integrate the activities of the different professional groups, and other agencies and associations that affect the hospital's operational programs, growth and development and the hospital's role and participation in a more effective community-wide health service.*

Let's examine this descriptive statement to see how it squares with professionalism and the forces which are molding tomorrow's health care environment.

SOCIAL RESPONSIBILITY

The criterion of social responsibility—service of public benefit—is of paramount importance as an essential element of

*R. J. Stull, "Management of the American Hospital," in *The American Hospital System*. (Pensacola, Fla.: Hospital Research and Development Institute, Inc., 1968), pp. 68-69.

professionalism. And, to a degree, it has always been a characteristic of practitioners in our field. Although hospitals, to survive financially, must operate as successful business enterprises, the primary motivation for executives in the future must be based on a commitment to serve the public. If this isn't most apparent, visible and self-evident, I feel, there will be more harassment and regulation in an attempt to gain other institutional responses to the public's need and expectation for services.

The administrative function is the control process for the successful conduct of operations for institutional goal achievement; consequently, motivation at the executive level must be consistent with hospital purposes—now clearly defined by public policy. There must be acceptance of social responsibility and accountability.

A BODY OF KNOWLEDGE AND ACCEPTANCE

Effective administrative practice relies on a synthesis of knowledge from many fields and disciplines, applied to the purposes and problems of hospital operations and, increasingly, to the broader areas of concern in community health affairs. It can be likened to the knowledge requirements of the modern physician who, likewise, must depend upon a broad spectrum of information from a variety of disciplines in the solution of specific health problems and who, today, similarly, is being encouraged to embrace greater understanding and appreciation of the social and economic consequences of his medical program management.

That there is a body of knowledge which encompasses many fields and disciplines and which is applicable to the specialized management of health institutions has been recognized, established and accepted by institutions of higher learning in the awarding of graduate degrees. Moreover, by agreement a voluntary agency for accrediting programs providing this knowledge has been created by the major associations in the health field. I refer to the National Accrediting Commission on Graduate Education for Hospital Administration.

Further support of the fact that progress has been achieved in this specialized education is evidenced by the success of the

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graduates and the respect for their degrees by employing groups and agencies. In fact, the degree is now accepted as a hallmark of potential for administrative competence; it is a testimony of an interest in personal growth and development; it indicates a willingness to acquire more readily the values that professionalize the responsibility.

Although there is some variation in approach being made to graduate education and the curricula differ among universities, trends do indicate considerable unanimity of purpose; introducing the student to the arts and skills of managing; acquainting him with organizational methods and behavior common to all administrative functions; guiding him in an understanding of the characteristics and purposes of the health institution and of policy processes leading to the achievement of goals; and helping him to understand the social, political, technological and economic forces affecting the individual health institution. Encouraging, also, is the progress being made to inculcate the student with the scientific method, engendering in him a willingness to accept responsibility and be receptive to reasoned judgment, and preparing him to assume a leadership role.

It seems evident that the public's expanding needs and their expectations for the efficient delivery of health care services will necessitate the further refinement and extension of present knowledge in administrative areas. Furthermore, the relevant application of this knowledge will be paramount. To accommodate these pressures, managerial techniques, it would seem, will have to become more sophisticated and their introduction more expeditious.

One of the real hazards we face in our efforts to enhance administrative practices, regrettably, is the fact that most of our social institutions historically are molded by old traditions. As such, they serve as the carriers of the culture, as perpetrators of the status quo. Some universities, health institutions and professions reflect this to an appalling degree. As a consequence, they actually precipitate some of the crises in today's society—through their toleration of a myopic imbalance between needs, technology and application. Admittedly, the transition from the old to the new is not easy, but, whenever—and wherever—possible we must close the breach in the future.

STANDARDS OF EXCELLENCE

The final professional criterion I want to examine relates to an effective means for setting standards of conduct, influencing behavior, and disciplining poor performance.

The hospital's chief executive officer, in the fulfillment of his role and responsibilities, is visible and under continued scrutiny by a board of trustees, a medical staff, and a host of other groups and agencies who are constantly inspecting, accrediting, regulating, and negotiating with the hospital. Additionally, through his many relationships with local, state and regional hospital associations, councils and committees, he is regularly exposed to his peers. In brief, there is a variety of potential checks and balances on his administrative performance; much more so, I suspect, than in the business world. To what degree do these groups influence standards of conduct, behavior and performance? Experience would indicate this varies considerably at the present time. In the future, however, their presence will demand increasingly higher standards, better performance, and will exert a decided influence toward managerial excellence.

There is another factor which contributes to the development and performance of hospital administrators and which is adding immeasurably to his status as an emerging professional. This is the professional society, the American College of Hospital Administrators, established by visionary practitioners who saw a need for upgrading administrative practice and did something about it. It is also interesting to note that the thinking and action of this group served as the catalyst for the recognition of the need for and the establishment of graduate education.

The action taken by this group—since it included broad programs of education—had a forceful impact upon the quality and quantity of administrative talent available to the health care field. Without question, the influence on their membership paved the way to advancement to more responsible positions of leadership. Any “behind-the-scenes” analysis of progress in institutional services and facilities reveals competent administrators as the Prime Movers.

In recent years, the College has moved aggressively to upgrade and make more meaningful its rules and regulations for admission,

advancement, and continuation of membership. Higher standards of education; responsible administrative experience; peer examination, both written and oral; continued personal growth and development, through a process of continuing education; leadership in community, state, region and national health affairs; and adherence to ethical conduct—all are being promulgated by the professional society. Over 8,000 individuals, the vast majority of practicing administrators in the United States and Canada, are members. The net growth each year is about 300, with better than two-thirds of the new members holding at least a master's degree and all representing a variety of top-level position in diverse facets of health care administration.

Membership in the College, like graduate education, today is accepted and respected. The ACHA, as a result, has assumed the obligation—and has implementing programs under way—to pursue a course of action to establish self-government. It will deny professional recognition to those not worthy of it.

With the exception of licensure, it would seem there is available and at work the mechanism for adequate peer review and discipline in hospital administration. Its existence is warranted—not to protect poor practice from adverse judgment by others, but to ensure the validity of any criticism. Licensure, in my mind, is little more than a historic symbolism of public sanction for professionalism which is being diluted by proliferation, its acceptance of the minimal, and the attendant problems it creates when it is introduced in the health arena.

It is my firm conviction that an impressive degree of professionalism distinguishes the practice of administration in hospitals. Furthermore, all trends point to an even greater degree of sophistication and professionalization of practitioners in the future. In my judgment, what has occurred has not resulted from any master plan. Rather, it has evolved from a response to the environmental forces exerting pressures for a change in the functioning and leadership role of the executive. Further progress toward professionalization of health care administration will rely heavily on the forthright acceptance of its desirability by all who have a stake and role in the successful development of the most effective health services delivery system, particularly the employers of health

care administrators, the other health professions, and the educators.

Additionally, there is the need for the clarification and acceptance of roles, responsibilities and goals, both personal and corporate, so their relative importance will be delineated. From this would emerge incentives, satisfactions, ability, initiative and the dedication of the executives who are earmarked for advancement.

If we are to attract, develop and encourage the kind of specialized executive talent that is—and will be—required to cope successfully with the complexity and magnitude of the problems ahead, the rewards of a career in health care administration must be emphasized more than money, status and power. There also must be an opportunity to satisfy psychic needs, to fulfill the humanitarian goal of ministering to the health and welfare of those with such requirements, by reason of special administrative knowledge and skill. In closing, I submit that the present progress in the management of the nation's hospitals reveals the influence of professionalization in achieving a higher standard and quality of administrative leadership. From all of the efforts in society today, and many of them are crucial in shaping the world of tomorrow, perhaps the most potent factor we in the health field can bequeath will be the health care executive. What I foresee is that as much as any professional—and more than many!—he will shape health care in the world of the future. We must pass along to the executive of the next century the traditions, knowledge and values that will make his superskills a constructive force in society.

Future Education of the Health Care Administrator

John D. Thompson, M.S.*

I know it is usual to open a presentation such as this by stating how pleased one is to be here at this time and talking to this particular audience about this important subject today. Those are the usual cliches which one must bumble through, as well as the opening jokes and "thank you, Mr. Chairman".

I don't want you to think that my saying them today is in anyway perfunctory or just a matter of good form. I say them because, right now, the education of hospital and health care administrators is changing before our very eyes, taking on several forms of revision at the same time, and although most of this change has originated in the formal academic programs in hospital administration, they are but reflections of larger social and economic changes in the communities which our hospitals serve. No one, I repeat, no one, is going to be more affected by this change in the future than the preceptor. So, this time when I mouth the usual opening words you'd better believe 'em!

I don't know of any other field in recent times that owes as much to the practitioners of that profession, both in development of and operation of educational programs, than does the field of hospital administration. If we can divide the development of education in hospital administration into at least two identifiable eras, that is the era of the practitioner-teacher and the era of the academician-practitioner resulting from the professionalization of the educator, one can see that by definition, the entire first phase covering some thirty years from 1934 to 1964 was dominated by

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men who were practitioners first and educators second. It is interesting just to review the programs in hospital administration instituted during this early period and recite the names of their directors and founders. One can very quickly note that these names compare very closely with the list of past presidents of the American Hospital Association. It is no wonder then that these men considered their peers, for the most part, to be fellow practitioners, and consequently very strong relationships were established with preceptors in various hospitals throughout the country.

Graduates from programs in these days were not only classified by the school from which they received their degree, but by the names of the preceptors under whom they did their residencies. There was a time when a background characterized by being a "MacLean Man" or a "Pratt Man" or a "Larry Bradley Man" was more important as a designator of abilities and interest than whether the individual was a Yale, Columbia or Chicago graduate. In my own case, for example, it would be very difficult for me to "tease out" whether Dr. Bluestone had more influence on my subsequent career than did the fact that I graduated from the second class at Yale. I suppose if I had to make a forced decision, it would be in favor of Dr. Bluestone. The preceptor, then, in the era of the practitioner-educator was the very keystone of educational programs in hospital administration. These men responded with enormous dedication and devotion to the development of young hospital administrators. It is also important to note that they did so without benefit, in most instances, of any formal faculty appointment in a university, and certainly without any reimbursement from these institutions to pay for the time and effort spent in this educational process.

What has happened today, then, in this new era of the "professional academician-practitioner"? What is the role of the preceptor? How can this enormous motherload of administrative know-how in the practical application of administrative principles to the health field be tapped?

It is interesting to note that in spite of the contribution referred to above, not a single article addressing itself to the role of the preceptor appears in the last Journal of the American College of Hospital Administrators' special issue on Graduate Education for

Hospital Administration.¹ Indeed, it is difficult to find in this entire issue any reference to the role of the preceptor. Instead, most of the articles are directed to the expansion of the educational programs into two full academic years, thus eliminating the residency almost entirely.

Let us review, as of this date, the exact status of the residency training component in various programs in hospital administration in the United States and Canada. This first table illustrates the trend away from the residency as inferred in the series of articles in the above reference. In the left hand column we see eight programs require no residency at all as part of the requirements for a degree in hospital administration. In the middle column are listed those seven programs which require attenuated residencies varying from five to eleven months. The third column represents those nine programs who are still adhering to the standard requirements for nine months academic and twelve months residency experience. Even in this column however, there are three programs who have increased the formal academic requirements beyond the nine month period while still retaining the twelve month residency. The message is fairly clear; programs in hospital administration are finding it difficult to teach the content they feel is necessary within the limitation of the nine month academic year.

You are now probably wondering about the purpose of this session. Did I travel all the way to San Antonio just to tell you that you should go out of business? Or am I here to assist you to be better preceptors? I hope the rest of this presentation will make it clear that the main purpose of this talk is the latter course. In order to carry it out however, I felt I have to place the role of the preceptor in the present academic scene. The above shift in the educational setting, I think, is an attempt to adapt to three important and recent trends in the field of hospital administration. These are not necessarily presented in the rank of their importance, but first for some time now, the students entering the programs in hospital administration are different today than in the past; second, the hospital is a different institution today than it was in the 30's or 40's; and third (and this follows

¹Hospital Administration, XII (Fall 1967).

Table 1
Type of Residency Experience Required for a Degree
Selected Programs in Hospital Administration
United States and Canada
1969

No Residency		Residency		
Two years Academic	Less than 12 months Residency	12 months Residency		
With structured summer experience (5)	9-11 months residency (4)	9 months academic (9)		
Temple University	Georgia State College	Army-Baylor University		
University of Colorado	University of Pittsburgh	Columbia University		
University of Missouri	Washington University	University of Ottawa		
The University of Michigan	Saint Louis University	Medical College of Virginia		
Cornell University		The University of Montreal		
		Xavier University		
		University of Puerto Rico		
		University of Toronto		
		University of California, Los Angeles		
Without structured summer experience (3)	Less than 9 months residency (3)	More than 9 months academic (3)		
University of Saskatchewan	Yale University	Duke University		
University of Iowa	University of Florida	Trinity University (Texas)		
University of Chicago	University of California, Berkeley	University of Alabama		
Total (8)	(7)	(12)		
		Unclassifiable		
		May be any one of 3 (3)		
		University of Minnesota		
		University of Alberta		
		The George Washington University		

from the second), the role of the hospital administrator is changing; and in fact, will be as different tomorrow from what it is today as it is now different from that of MacEachern's day. Let us examine the last two trends first, the changes in the role of the hospital and its administrator. If we examine the recent changes in the content of the programs, particularly the academic portion, we can gain some insight how the above two changes are reflected in this content. The role of the preceptor then can be defined more clearly since he must make possible the reinforcement in the practice setting of this new content.

When one reviews the "new curriculum" in hospital administration, there are three particular areas where drastic changes in input have occurred. The first is the role of government in the health care scene; the second is the attempt to rationalize the total health care delivery system from the doctor's office to the nursing home; and the third is the increased amount of quantitative skills and knowledge included in the modern hospital administration curriculum.

All three of these areas share one common characteristic. That is, they represent new inputs of content not formerly considered as part of formal course in hospital administration in many of the older programs.

Academic or practicum content in the role of the government in the hospital care system formerly was given fairly short shrift. Perhaps one session was spent on the Veterans' Administration Program, a bow of the head was made to the role of the state government in the care of the mentally ill, and with the exception of this program in San Antonio, governmental hospitals were felt to be populated pretty much by those who just couldn't make it in the voluntary hospital field.

Careful examination of a more rational way of delivering medical care was usually limited to those hospital administration programs which happened to be seated in schools of public health. These students were subjected to a series of courses called "Medical Care" or "Medical Care Administration" taught by the biggest bunch of prophets without honor in their own country as ever graced the secluded retreat of the academic institution.

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Operations research and systems analysis were strange new words only of interest to mathematicians and engineering types with very little practical application to day to day operation and administration of a complex institution such as a hospital.

All that is changed now, these three areas account for considerable parts of the "new curriculum". New and strange words such as "public policy", "utilization review", "comprehensive planning", "computer simulation", or "linear programming" began to replace discussions on whether a centralized or decentralized dietary system was better in a 250-bed community hospital or the advantages and disadvantages of the all-inclusive rate, or whether pounds or pieces should be used in measuring laundry load.

The increasing importance of these three areas is illustrated by the fact that they were the subjects of the first three faculty workshops sponsored by the Association of University Programs in Hospital Administration. The first of these workshops was devoted to the topic of Medical Care, the second to Planning of Health Facilities, and third (held this last winter in San Antonio) was devoted to the place of quantitative analysis in the hospital administration curriculum. I think this not only illustrates the rising importance of the areas themselves, but even more importantly, as far as you preceptors are concerned, points up the fact that even the academic faculty had to be educated so that they could teach this new curriculum to the students before they get to your institutions.

Now, how can a preceptor accommodate and strengthen these three areas specifically during the administrative residency. I think there is one common thread that runs through all three, that thread can be expressed in one word—"evaluation".

For many years hospitals were characterized as comprising one of the largest service industries in the nation, and perhaps the only one in which careful evaluation of the product was not a routine part of management. Unlike most other industries, manufacturing or service, evaluation was not fed back into the planning of new programs or the administration of old programs. The whole concept of industrial quality control, for example, never really took hold in the hospital field except in the most rudimentary way. Patient questionnaires have in the past been touted as giving

administration some feedback as to the success or failure of the institution to render the quality of care implied by the goals of that institution. Quality measurement was usually delegated to the medical staff, and particularly to those medical staff committees such as the surgical audit committee or the medical chart review committee. Once this was delegated, most administrators never really monitored quality assessments.

As long as one was satisfied with some fairly well accepted indirect measurements of quality, such as the specialty training of the medical staff, the degree of education received by the nursing staff, or the number of postmortem examinations, one could rather blithely assume that the evaluation process was being taken of.

This, too, has changed. Let us review these three "new" content areas and see how they affect this problem of evaluation.

The three most recent major federal programs in health care, though concerned with quite different service areas, have one thing in common—the lack of relevant and sensitive evaluative procedures for the measurement of the effectiveness of the program.

Though it is true that some kind of an evaluative procedure, i.e. Utilization Review, was included in Medicare, in fact, as of this date, the federal government has no way of estimating the effectiveness of the care for which it is paying considerable amounts of money. I feel the hospital industry is now on notice that this situation must change so that the agency that is now paying for approximately thirty per cent of hospital days can determine how effectively this money is being spent.

The Heart, Stroke and Cancer legislation was directed towards the planning and operation of regionally-based support systems to improve the quality of (1) patient care and (2) continuing medical education. Here again, evaluation was considered important. The Public Law 89-239 operational grants were to have evaluative procedures built into them. In actual practice, many of the evaluations can best be described as "market research" and unsophisticated market research at that. The evaluation process is usually the weakest part of the operational proposals.

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Public Law 749 (Comprehensive Health Planning) has as its basic underpinning some measurements of effectiveness. If this effectiveness cannot be measured, then the priorities set by the state planning bodies will be based on some other less desirable criteria, as has so often been the case in the past.

If one accepts the basic premise that the primary concerns of the professional health administrator is in the rationalizing of the total health care delivery system, then the primary professional task of hospital leaders today must change from that of the internal operation of a most complex organization to a concern for that organization's place within that medical care delivery system.

The first and most obvious result of this premise is that the hospital will become less discrete an entity. The hospital will, as Ray Brown has said, become a series of arrangements rather than an identifiable entity with a visible limited mission. One approach to this problem, then, is to examine these arrangements and determine how these various alternative service patterns can be evaluated and how can their effectiveness be measured?

In order to evaluate effectiveness, three factors must be isolated and quantified. The first is the identification of a unit of service or output; the second a measurement of the quality of that service; and third is an indication of the input, of the amount of some resource be it money, manpower or materials expended in rendering that service. Evaluation in the field of hospital care has suffered from the inability to describe or quantify each of these three factors.

The output measurement most commonly used in comparative evaluations of hospital effectiveness has been the patient day. Though an accepted measurement, it has very real limitations in delineating productivity evaluations.² Though some measurement of resource allocation, that is a cost of this unit of service, can be derived, the measurement of the quality of that service unit is not possible since it is but one part of a larger service. It seems then that the "patient's stay" is a better unit of service measurement, particularly when refined by being considered as a "patient's stay"

²U.S., Department of Health, Education, And Welfare, *A Report to the President on Medical Care Prices*, William Gorham, Assistant Secretary for Program Coordination (Washington, D.C.: Government Printing Office, 1967), p. 31.

for a selected diagnosis. This far more logical service output could then be more easily linked with a quality measurement and some reasonable approximations of the cost of that unit of service. Then some of the difficulties of past comparative evaluations of the effectiveness of hospital treatment may be overcome.

Let us now turn to the quality part of this equation. Mr. Preceptor, how much have you involved your students in the studies of the quality of care for your institution? I have here today several examples of quality studies done by Air Force residents.

Table 2
Perinatal Deaths by Race of Mother in Two U.S. Air Force Hospitals

Race of Mother	Hospital "A" No.	Hospital "A" Rate	Hospital "B" No.	Hospital "B" Rate
White				
Live births and fetal deaths	1794		2418	
Perinatal deaths		41		67
Perinatal death rate		22.9		27.8
Negro				
Live births and fetal deaths	276		224	
Perinatal deaths		17		8
Perinatal death rate		61.6		35.7
Other				
Live births and fetal deaths	45		68	
Perinatal deaths		1		9
Perinatal death rate		22.2		132.4
Total				
Live births and fetal deaths	2115		2705	
Perinatal deaths		59		84
Perinatal death rate		27.9		31.1

Reference:

J. D. Thompson, D. B. Marquis, R. L. Woodward, R. C. Yeomans, "End-result Measurements of the Quality of Obstetrical Care in Two U.S. Air Force Hospitals," *Medical Care*, VI (March-April 1968), 135.

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The first study involved a comparative study of the quality of obstetrical care rendered at two Air Force hospitals. Several medical-administrative questions arise from the review of this study. One, the overall perinatal mortality rates is not significantly different between the two hospitals, but it is interesting to note that in Hospital "B" the so-called differential in perinatal mortality rate between black and white disappears. In Hospital "A", however, the familiar pattern which we see in larger cities persists with a perinatal mortality for whites as 22.9 and 61.6 for blacks. What is there about the perinatal care in Hospital "A" that results in these findings? In Hospital "B" one should note the fantastic perinatal death rate among the "other patients". Further exploration of these findings revealed that they were primarily among Japanese mothers married to Caucasian husbands. It is obvious from these figures that any Oriental mother reporting to the Air Force hospital for pre-natal care should automatically be treated as a high risk mother. Further breakdown of the white experience into parity reveals that there is a significant difference in the perinatal mortality rate among white primiparous mothers between the two hospitals. This is an important finding for Hospital "B" since you will note that that base had a relatively higher number of primiparas than did Hospital "A" because the mission of this base is that of training, primarily enlisted personnel. The base, then, had a younger population and a higher number of primiparas. Therefore it should be staffed with special facilities to care for this population.

Table 3
Perinatal Deaths
Mother is White and Primiparous

	Hospital "A" No.	Hospital "B" No.
Live births and fetal deaths	607	904
Perinatal deaths	9	31
Perinatal death rate	14.8	34.3

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The second quality study is concerned with the diagnostic accuracy rates among appendectomies in still another Air Force Hospital. These rates compare very favorably with the 80%-85% figures considered standard for civilian hospitals.

Table 4
USAF Hospital Appendectomy Accuracy Rates

Year	Percentage
1959	86.16%
1960	82.92%
1961	90.56%
1962	95.59%
1963	85.49%
Five-Year Average	87.62%

Classification of Tissue Specimens

	Necessary	Unnecessary	Total
Ruptured	18		18
Acute	272		272
Normal		40	40
Total	290	40	330*

*One patient with no tissue report omitted.

Reference:

Arthur M. Silfen, "Review of Primary Appendectomies at a USAF Hospital, 1959-1963." *Military Medicine*, CXXXII (January 1967), 46.

Both of these studies illustrate the application in the hospital setting of quantitative techniques of quality measurement generated by those in the field of medical care. That we can see a closer relationship between hospital administrators and those in medical care is indicated by the fact that the American College of Hospital Administrators' prize for the best article for 1968 was awarded to Dr. Avedis Donabedian³ for "Promoting Quality Through Evaluating the Process of Patient Care". Dr. Donabedian is Professor of Medical Care Organization at the University of Michigan.

We feel that the hospitals of the Air Force and other military branches offer a fertile field for inquiries into medical care delivery studies. Military hospital records are usually more complete than those of comparable civilian hospitals. The use of these well-conceived standard forms with this extremely high rate of completion is the key to the successful implementation of quality studies in areas other than those mentioned here. Such studies, when coupled with accurate resource allocation information resulting in measurement of resource effectiveness, might very well serve as models for their civilian counterparts.

I do not know enough about the cost picture in your hospitals to treat the other side of the cost effectiveness equation. In the past, most measurements of costs were average costs of patients with all diagnoses⁴ characterized by all the limitations inherent in the fusion of the costs of caring for a patient with a tonsillectomy, with those incurred treating a patient with coronary occlusion. Some method of assigning costs directly to the patient must be developed if accurate measurements of productivity or effectiveness, i.e. input output ratios, are to be obtained which are sensitive enough for comparative evaluations between hospital care given in different institutions or within different medical care organizations.

After discussing this new curriculum, I would like to close with a few words about the "new student". He is younger than formerly, brighter and very impatient. These characteristics are those

³Avedis Donabedian, "Promoting Quality Through Evaluating the Process of Patient Care," *Medical Care*, XI (May-June 1968), 181-202.

⁴J. D. Thompson, "On Reasonable Costs of Hospital Services," *Millbank Memorial Fund Quarterly*, XLVI (January 1968), 33-52.

very ones which seem to require at least twelve months of seasoning under a preceptor at a time when this type of experience is being minimized. I ask you to remember that most of these young men now go into the armed services on graduation and receive their seasoning there.

What they really lack is a feel for hospital lore. They, for the most part, know objective quality criteria, they know how to select cases for utilization review, but they do not know how the pressure of peers works inside a hospital. Students are unaware, furthermore, that the area of quality measurement is a most delicate interface between administration and medical staff. I think every resident should be required to attend clinical pathological conferences, service death reviews and surgical tissue committee meetings. He may have trouble for awhile with the vocabulary, but he will realize the importance of the professional discipline resulting from a well organized medical staff. He may finally realize the truth of Dr. Martin Steinberg's axiom about quality of medical care. "Let the doctors make the rules to be followed by their peers which will result in a high quality of medical care. They will themselves make the right rules, but let the administrator keep score."

Future Roles of the Physician In Health Care Delivery Systems

Dwight L. Wilbur, M.D.*

In approaching the subject of the future role of the physician, I thought that first of all I would comment on the delivery system of the future, as I see it; and then, subsequently, comment on the role of the physician in this system, or as I prefer to say systems—multiple systems rather than a single one. In a country as diverse as ours—from the large urban areas to the remote rural ones of, let's say, Nevada, Montana, and Wyoming, and even in my state of California, it is quite clear that the matter of delivering health is very different and will require different types of systems. The other advantage of using the word systems is that one has an opportunity of experimenting with different types to see which is really going to be the most appropriate as medical science develops and as the sociological changes at work confronting us become further embedded in our culture.

First of all—as to the systems. Let's take a look at the physician in the system because there are some things that are going to happen to him.

First, he is going to become increasingly interested in a specialty. There is going to be increasing specialization, not only within the present specialties, but in subspecialties. New specialties are developing. Last February a new specialty of family practice was created. I think one can say, that in the future every physician who wishes will have the opportunity of getting into one or another of the specialties.

This will lead to the further development of group practice. Group practice, interestingly enough, is pretty much restricted to

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this country and to Canada. It is almost unknown in other parts of the world. You are quite aware of the different types of groups from the multiple specialty clinic to the single specialty group, to the closed panel type, to the fee for service group, to the prepaid group—for there are multiple types of groups.

In California 18½ percent of physicians practice in some sort of a group, such as defined by the American Medical Association. A group under this definition consists of three or more physicians who practice together and who have an intimate economic relationship in respect to their type of practice.

As one looks at the growth of group practice in this country, it is gradual, but definite, and I think it unquestionably will continue. However, I am quite sure that there will be a substantial number of physicians in this country who will wish to practice as solo physicians.

Another very important point about physicians in the future, is that they are going to increasingly depend on others—other physicians in the profession, for purpose of consultation, for close relationships in education and things of this sort. Then, of course, they are going to increasingly depend on those in the allied health professions and services. Later I am going to make some comment about this very important aspect in terms of the delivery systems.

Now another characteristic of the delivery system that is going to change will come from the physical clustering of health facilities about the institution we call the hospital. I am sure you will appreciate this characteristic because you see it in the Army much more than we see it in civilian life. There will be a clustering of all sorts of services around the hospital, to the extended care facility, the nursing home, and in the civilian environment, the professional building and such things as home health services.

The general hospital, as we recognize it today, will be very significantly altered in the future in that it will be rendered not only what we recognize now as general hospital care but a galaxy of types of care such as that of the intensive care unit, and the ambulatory unit in which diabetics and others requiring minimal hospitalization will reside. The advantage of this latter unit is, of course, that it is so much less expensive for the patient.

There is a trend in this direction. You may have seen in the paper recently that Mr. Finch, Secretary of Health, Education and Welfare has proposed to a Congressional Committee that more of the Hill-Burton Funds be used for this wider purpose and for neighborhood health centers. If the Administration is able to persuade the Congress in this direction, we will see, a very definite move by government in the direction of supporting, not the general hospital, but other types of physical facilities; all of which are definitely less expensive not only for the government or for the organization that is going to establish them, but particularly for those individuals receiving medical and health care in such facilities.

Another very interesting development from the standpoint of health care systems is what has been called the community health center or neighborhood health center. This is a long existing type of physical structure for health and activities. It has had relationships with quite a number of different types of organizations—community hospitals, university medical centers, or the local governments, either county or city. At times state governments have participated as in California and more recently, the Federal Government has become interested in this area. In a few instances private groups of physicians, strictly private clinical physicians, have been active in such centers. More recently county medical societies in some areas have established a very important relationship to such a center. The Department of Housing and Urban Development has been involved to some extent and so has the Department of Health, Education and Welfare (HEW). When the OEO program moves into HEW, that Department will become increasingly concerned with this particular development.

One of the questions that has arisen and has not as yet been answered is "What will be the relationship of the community health center to those various organizational groups that in the past have played an important role in establishment and operation of community health centers?" How much of a part will be played, for example, by the local medical society, by the university hospital, by government? This remains to be seen. Very clearly, however, the Federal Government is moving into this area and has done it successfully enough so that the demand for government participation exists. I think there will be increasing demand on the part of

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communities for Federal Government participation in this particular area of health care delivery system is.

Our concern in the profession is to the part that will be played by the medical profession. This depends largely on the local medical society. They may want to actively participate, as I hope they will. The professional level of care under these circumstances will clearly be of high quality.

There are two things that have been demonstrated to be absolutely essential in the successful operation of these community health centers. These elements have been learned primarily in one or two private centers of this sort—one run by the University of Chicago and in others under the OEO program.

These factors are first, accessibility—the center must be *accessible* to the people it will serve. The other is *participation* by those who are going to be served. This latter is a very important aspect and one which the medical profession finds rather new to it because we have not been accustomed to having patients, or consumers, play an active role in the development of ideas or in the development of systems and in the changes in health care systems. I think we must keep in mind that this is a very important element because it means first that without these two factors such a program usually will not be a success. In the second place, they play a very important role in bringing the individuals of the community into the center for participation and for health care. Third they play a very important role in the education of those to be served.

Physicians fail to realize the important educational role they serve in the care of their own patients. This will be increasingly the case, as the physician deals with chronic diseases—degenerative diseases which as a rule last a long time. Increasingly the physician is going to have to play the role of the educator of all patients as he does now in the case of a diabetic patient.

One can simply transplant this principle to the community health center and recognize that the participation of those who are going to be served, particularly the minority groups is very important in getting the center to be successful in bringing patients

needing care into it and in educating them as to what modern medicine really has to offer.

These two principles of accessibility and participation have become clearly recognized as essential in the management and operation of a successful community health center. Let me just repeat once more how important it is for physicians involved to participate in the management and the professional activities of the center itself.

Another very important aspect of developing delivery systems will be the use of men and women in the allied health professions and services; and by this I mean all of the professions from dentistry, pharmacy, nursing and the like. I mean all the way to someone who offers an aspect of health care which cannot be given by the average employee in the business world. These individuals are going to become increasingly important.

You in the Army have had much more experience with this than have many of us in civilian life because you train your own technical manpower in so many different fields. You have learned to do this very successfully and you have found it to be a very important aspect of military medicine. We in civilian life are going to have to go through many problems, as you did, to find out how we can successfully use such people. The success you had in a program of training corpsmen, for example, has been one which unfortunately we have not been able to translate into civilian life except in a few areas. Whereas there are now some ten such individuals for every physician in the country, it is estimated that by 1975 and certainly by 1980, that the number will be more in the ratio of seventeen to one. I would like to comment on this a little later when I refer to the role of the physician in relation to those individuals who are in the allied health professions and services.

Another striking change to come in the delivery systems is that no longer will the physician travel to see the patient. The patient is going to travel to see the physician.

We hear so much nowadays of discontent on the part of people with the fact that physicians do not make house calls any more without really considering how fruitless and futile it usually is to

make such a house call. The physician is used to having laboratory work, he is used to having radiological studies, he is used to having electrocardiograms, or whatever may be immediately necessary and available in the hospital. These he does not have available on a house call in the patient's home. Furthermore, the physician really can no longer take the time to make house calls. There is a great transition already in effect in relation to house calls. We know this from the number of people who now go to the emergency room of a hospital for their primary care.

Along with this, there is going to be another very interesting transition. Some members of the health team will go to the home. They will go to the home not so much to do what the physician used to do; but the individual will go there to do a number of things such as to persuade people to come into the health center for care, to find out who in the home may need care, and in other ways to act in the front ranks, so to speak, to see to it that people get health care when they need it. Either they may not realize they need it or, because of fear, or ignorance, or financial problems they may not go to get the care. This is going to be a very interesting shift and a very important one.

Finally in the health care system of the future, we are going to see more and more consumer participation. This is the order of the day. As you very well know, in PL 89-749, the law says that the state advisory councils shall be made up of a majority of consumers. The law in my judgment has gone too far in this respect but this is what the law says. We know that consumers primarily compose boards of directors of hospitals, although as such they do not consider themselves consumers. We also see increasing numbers of consumers on local regional planning bodies. Some of them are really purely consumers because they have no interest except as consumers in the health delivery system. Others are consumers but involved in the sense that they have some relationship to health care activities such as social service, welfare, and others.

This consumer involvement is going to be a very interesting and I think a very important one. It too, will deal greatly in educating the public as to the problems of medicine. I might say that if we now had the proper consumers on some of our boards, we would not have such a great problem of public understanding of the rising

cost of health care in this country. There would be better understanding of why health care costs are rising.

Rather interestingly, in my state of California, by law the state board of medical examiners has a nonphysician on it. As you can well imagine the medical profession resisted this move; but I am told by a number of members of the state board of medical examiners that the individual chosen has been very helpful to the board and is very useful. While one would want to limit quantitatively the participation of the nonphysician in this sort of activity, nonetheless, there is good in it and I think we should honestly face this situation.

These then are several things that I see ahead in health care delivery systems.

I would like to make some comments on the role of the physician in the health care delivery systems.

First of all, let us just take a look at the physician, because physicians are changing. Today's graduates are entirely different in their training and in outlook from those graduated at the time that I did. What are some of the types of young men and women going into medical school at the present time?

Many new students have quite different backgrounds than we ordinarily think of as the type going into medicine. We picture a type who is scientifically oriented and who looks on medicine much as do most of us who are a bit older.

Students are now coming more and more from minority groups. As you are aware, there is a real move on in this country to get black students into medical schools. This is bearing considerable fruit. I suspect there will be several hundred young black students, both men and women, in the first year class of medicine this fall. I think there will be more next year and there will be a certain number of Spanish-Americans and a few American Indians.

One of the most striking things about today's medical student is the fact that he is oriented to people and interested in the sociological aspects of medicine. I believe some of them are using medicine as a vehicle to become more active in the sociological aspects of society.

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Many of the youngsters going into medical school now are oriented to psychiatry, to psychology, and to the behavioral sciences. Thus we are seeing a very important change in the character of a substantial number of medical students. It will be some time before we feel the full impact of this change in the character of the student.

I should point out immediately that the freshman medical class of this fall will not be ready to practice medicine until 1980. That is a very disturbing fact, but it is the case, unless there are some very striking periods of shortening in medical education in the next ten years.

The education today's student is going to receive will be quite different from medical education of 10 years ago. The course is probably going to be shortened, at least the cards are in the mill to shorten the time period: First, by getting rid of the internship, or the intern year: Second, by giving the student the opportunity of finishing his course in from three to six years. Very clearly he is going to have more elective time. If he has made up his mind that he wants to go into psychiatry or ophthalmology, he will have much more freedom in selecting those subjects which will be important to him in the area in which he chooses to specialize. Along with this he will be exposed to a basic medical science and a clinical sciences curriculum.

In many instances, the new medical student is going to be trained quite differently from most of us who are physicians. This already has led to the suggestion that perhaps states should license physicians not as MD's as such but as an MD in surgery, or an MD in pathology or an MD in whatever specialty the individual has chosen.

Another fact that is known, but I think it not appreciated as to the effect it will have is: How is the house staff going to be more adequately compensated? I served two years as an interne for room, board and laundry while the modern interne doing the same thing in a good hospital, gets \$8,000 or \$10,000 a year; and as a resident up to \$12,000 a year. This will probably gradually increase in terms of the number of dollars. Thus the psychology

of the interne and the resident will change entirely from the thinking in my day. We knew we were going to be deprived, unable to be married until it was over and then having to learn about the economic aspects of practice at the end of that time. By getting an "adequate" salary, the modern young physician is going to be able to be married, to have a family which he can at least partially, if not entirely, support and he is going to go into the practice of medicine, often in debt it is true, but less often in debt than students of 10 years ago. This is going to change his attitude towards the practice of medicine.

What about opportunities? Well, the opportunities in the future for the physician are going to be greater than they have been in the past because, in the first place, he can go into the specialty he wishes; and here again he will have greater opportunity in terms of variety. Any young man who wants to go into practice when he is through with his military duty has no difficulty whatever in getting a job, or in being pretty well compensated for it. I think this will continue and probably broaden. Along with this he is going to have a wider variety of specialty and subspecialty to enter. Further, as I have indicated, many young physicians will go into groups.

More and more physicians, I suspect, are going to be hospital based for reasons I have mentioned in terms of physical facilities and the strategies of having all the activities centered in one area.

Public health and medical administration, the areas in which most of you are interested, research, and education will naturally continue to draw a substantial number of young physicians away from practice. How extensive this will be naturally will depend on a number of things such as the amount of money that is available for new schools, for enlarging the existing schools, and for research. Already in fact, since the NIH grants were reduced, an increasing number of young physicians are looking for places to practice medicine, really for the first time in about six years. So these things in relation to financial reward can very significantly affect and influence young physicians in the area in which they practice.

Along with this I would hope an increasing number of young physicians would choose to go into and stay in the military

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service. In order for this to be accomplished, quite clearly there are certain things that will have to be done to aid the physician in such a way that he will want to continue in military service. This is not going to be easy as you know. Nonetheless, it can be done if we really have the will to do it.

Another very interesting role of the physician in the future is that of leader and planners in the delivery of health care and its systems. I tried to separate these at first, but I found that I was not able to do so. They are very closely interrelated. The physician in the past has always been the leader of his patients. He has led in relationship to the community, in terms of public health. In so doing, he has had to plan basically within the area of his knowledge and scientific medicine. This is changing considerably. As health care becomes more and more successful, as more and more people participate in it, and as there is increasing demand for it, very clearly the responsibilities of the profession in terms of leadership and of planning for health care delivery and for their own future becomes increasingly important. This is a very difficult transition for many physicians to accept or even to understand, to say nothing of willing participation. Each physician very clearly is going to have to take an increasingly larger role in planning for his own practice, for his own group, for his own hospital staff, for his local medical society, for his state and national associations, for the medical specialty societies to which he belongs, and, of course, in relation to the broad area of health planning—health planning for his community, his region, and perhaps his state. The success of the profession in maintaining a position of leadership, will really determine, in my opinion, the success of these programs throughout the country. Without appropriate medical leadership very clearly many decisions will be made, not on a professional basis, but on some basis having to do with economic factors which are not the prime consideration in health care—because quality is the prime consideration. Leadership and planning becomes increasingly important and physicians are going to have to participate more and more through the various groups I have mentioned.

A topic that I would like to return to is that of health manpower, because here we enter into a very important area. I would like to mention some manpower problems.

Quantitatively, there are now about 300,000 physicians in this country, of whom somewhere in the neighborhood of 240,000 are in active medical affairs—practice, research, education, administration, and the like. There are some three and a half million people in the so-called health care industry with important relationships to some aspects of health care.

A presumption is that by 1975, and certainly by 1980, we will have another 25,000 physicians and a million more individuals in the field of allied health professions and services. Quantitatively, then, there is going to be a great growth in this second and essential group and a very slight growth in the total number of physicians.

The qualitative problems that goes along with this are considerable. They have a great deal to do with some very serious questions and some struggles for power that are going on in this country at the present time. Let me point out some of the problems in this area. One has been called the "manpower hour glass." This hour glass is formed by indicating the years of education of different individuals in the health care field. The physician, from the time of high school, takes approximately 14 years before he is ready to practice. The professional next to him in number of years is the dentist. While an active member of the health manpower area, he is in a specific category because he deals with the teeth. The next one is the pharmacist, who from the time of high school is in the area of eight or nine years, and the nurse in the area of 3 to 4 years. One has then a wide layer at the top of the hour glass and then a narrow one at the neck and a widening one at lower levels of health education.

Knowing that nature abhors a vacuum and that physicians cannot possibly render all the health services that are needed, others are going to be used. The problem really is, what category of individual is going to fill this vacuum? Will it be the second degree doctor—one who does not have the superb training of the modern American medical graduate? Will the nurse move up into this area? Will the pharmacist, who by training is the best qualified, move into such a gap? Or will we develop a new type of category? Will the so called physician's assistant move into this vacuum?

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This has not been settled yet. This is one of the real problems facing the profession. The answer to this will very significantly affect health care delivery systems in this country.

There is a great desire on the part of a number of these individual groups, professionals but nonphysicians to assume a position of increasing importance, but one which in my judgment they are not prepared to assume; namely the leadership of the health team. Because of the increasing number of nonphysicians in the field, and with the specialization in medicine, the health team is going to become increasingly important.

While no one has actually defined the health team, perhaps one ought to do it on the basis of health services and indicate that for some individuals, for some illnesses, a physician, a single physician, can render all the health services that are necessary for a patient who has a minor respiratory difficulty, or minor gastrointestinal disturbance, or many of the common things that take patients to physicians. On the other hand, in the case of an open heart operation, the health team may consist of 20 to 25 different individuals in about 12 to 15 different categories. So one can run the whole spectrum from a very simple to a very complicated functioning health team. One of the problems that we face in medicine in relation to this group, is what our relationships will be as physicians and as presumably captains of the health team in sharing our responsibilities. By and large physicians in civilian life have not been trained to delegate professional responsibility. Yet they are going to have to learn to do this, although I believe the physician must maintain the ultimate responsibility for the patient. Despite the fact that nurses, pharmacists, and others, even social workers, have been suggested at times as captains of the health team, I do not believe that the ultimate responsibility for care of the patient should ever rest with anyone except the physician. Just as an army must have a general, and a ship a captain, and even a revolution a leader, so must some one in the care of patients have the ultimate responsibility. This I believe should be a physician.

The American Medical Association, you may be interested to know, has a Council on Health Manpower now just over one year old. It is very carefully studying this matter of the physician's assistant, the health team, and what is an equally important

problem "What are we going to do when these individuals are trained, in respect to licensing them?"

Let's take a very close look at this. Should we license a physician's assistant who comes out of the Duke program, for example, or should we, as they are going to do in Colorado, introduce into the legislature a law which will set up an examining board for the nurses who are going to become pediatric nursing assistants? I think we had better take a very, very cold look at this because, among other things, we must have great concern that we do not reach the point where a patient is taken care of by a committee, which could happen where little pieces of the pie of patient care are set in concrete by law.

Our experience in terms of licensing physicians indicates what a serious problem this can be. Take my own case. I am licensed by the state of California as a physician and surgeon. So under the law, I can do neurosurgery, a caesarean section, bone grafts, anything you can mention in the field of the practice of medicine. But there is not any accredited hospital in California that would permit me to do more than practice in my field of internal medicine.

Let me point out that, it is not the state that does this but my peers who do it, it is the medical profession, it is the medical staff of the hospitals. So often we hear the statement that the profession does not adequately discipline itself. Or, it is not doing a good job in maintaining high professional education and standards. I will admit there are some defects, but I think the medical profession has done more in elevating the standards of its profession and its practitioners than has any other profession.

If we set in the concrete of law what a physician's assistant may do, in a field that is rapidly developing, we may find a year later that the law may be entirely ineffective and inappropriate. It has set in rigid terms what that individual can do; whereas with additional education, he might be able to do very much more, if a physician will take responsibility for him.

Another thing that is important in relation to education, is the need to educate these individuals along with physicians. Again, my compliments to those of you in the military service because

you educate your corpsmen, technicians, therapists, and medical administrative personnel, right along with your physicians—all in the same setting, in the same building, in part with the same faculty. We are going to have to do this in civilian life.

Another very important principle in this area is that of escalation—permitting the individual to go as far vertically as his intellect and his education will permit him to go, even though he may be an orderly. If one has the ability, wants the education, and can get it, he should be able to become a physician. The same with a nurse. A practical nurse with the ability to react to further education should not have to go back to the “first grade” of nursing, but should be able, on the basis of her experience and knowledge, to proceed up the ladder of nursing. It is important too, that such individuals be able to escalate horizontally and tangentially so that if a physical therapist wanted to move over into the area of rehabilitation medicine or occupational therapy or some other area, this would be possible. This has yet to be developed.

So far as the role of physicians is concerned, there are a few other areas I would like to mention briefly. One is the importance of continuing medical education which physicians will have facing them all the time.

Another is to consider the financing of health care and public education as to the essential need for adequate, comprehensive voluntary health insurance. Just as the average, prudent individual insures his life, and his house, and his automobile, and would not think of living without much insurance, so must he be taught that health insurance is essential for him and his family. Not just health insurance, but comprehensive health insurance which will cover services outside the hospital, as well as in the hospital and for prolonged illness. Educating people to the need for this is a real responsibility of the physician of the future.

Finally, I should say that the role of the physician and the patient should continue to be the time-honored one it has always been—a close personal relationship, a voluntary association of two individuals, one seeking and the other giving relief. Even today in the most sophisticated experiment that man has ever done this need was apparent. Some of you may recall that on the first flight

around the moon, the astronauts, at least two of them, developed respiratory infections while in the capsule. When they reported this to the base at Houston, they conversed with someone who was an expert in communications. This individual then spoke with Dr. Berry, or one of his associates. An answer was then relayed from Dr. Berry through the communicator to the men in the capsule. One of the comments made by the men in the capsule after they returned to the earth, was that they very much missed the opportunity of directly speaking to the physician.

There is a great lesson in this for all of us. When we are sick and not feeling well and under all the pressures that go with illness we have need for some one, a physician, with whom we can communicate directly and who will have hopefully the understanding and the human relationship which has always been the basis of the practice of medicine; and which hopefully always will be.

Part II
THE PLAN

A Graduate Curriculum for the Future

Colonel John P. Valentine, MSC*

The ongoing "revolution of rising expectations," which has had so dramatic an effect on our society, is leaving indelible marks on our evolving health care system. One such mark is the burgeoning demand for health services. While this new demand has been termed a "revolution," because it is causing an upheaval in the structure of services offered, it is actually another evolutionary development in the health care system that has served society in two centuries. Since the advent of mechanized diagnostic techniques and sophisticated treatment procedures, the hospital has had less and less cause to protect society from the sick and more and more ability to cure and rehabilitate the sick and return them to productive lives in society.

Modern hospitals, having become the locus of health care resources, have expanded their role to include research, training, social services, and outpatient services. They have become the focal point for community health activities. Dwight L. Wilbur, M. D., President of the American Medical Association; Richard J. Stull, Executive Vice President of the American College of Hospital Administrators; and other leaders in the health care field emphasized, during the Preceptors' Course, that a current trend in the delivery of health care is the development of community health centers.

This new image of the hospital as the locus of community health services was brought about by the increased demand for public action in many sectors of our economy. During the past decade our society stopped moralizing about the poor and the otherwise disadvantaged. Instead, such programs as Model Cities, Headstart, Job Corps, Medicare, Medicaid, Regional Medicine Programs,

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Comprehensive Health Planning and other social legislation affecting health care services and education were enacted.

The evolution of the hospital into the community health center, an evolution which must be recognized as the clearly marked preference of today's society, brings us face to face with a basic issue for educators of health care officials: whether the major emphasis in the education and training of hospital administrators should be on institutional management or on responsibility to the community for management of comprehensive health programs.

It would seem that today's hospital has two major concerns: strengthening its own internal operations and providing comprehensive community health services. To cope with the expanding social role of the hospital, health care administrators must broaden their perspective and recognize that the hospital is only one subsystem of the entire health care system in our society. No longer can administrators be concerned solely with the internal management of hospitals.

Health care educators must prepare knowledgeable professionals who can be responsive to the entire system of health care. These graduates of our health care programs must understand the socio-economic systems and how they operate. They must have a knowledge of political processes and of the interplay of the legislative, executive, and judicial branches of government. They must comprehend group and individual dynamics and the community power structure. They cannot be only hospital administrators; they must be health care executives.

With these thoughts in mind, the faculty of the U. S. Army-Baylor University Program in Health Care Administration began three years ago a comprehensive study ambitiously designed to provide the structure for educating the health care executives of the future. Recently completed, this study has molded the program around the concept of comprehensive health services. The present curriculum and the teaching methodologies are the fruits of a careful survey of the entire health care field and of educational programs in business and other disciplines. Management concepts and problem solving techniques that are consistent with the latest developments in health care administration and that are considered

educationally sound have been added; those that have failed to keep paced with current needs have been discarded. To bring the reality of the administrative process closer to the students, emphasis has been placed on student involvement in executive decision-making, on total systems operations, on research methodologies, on problem-solving, and on computer simulation practical exercises based on military and civilian management systems. The program has become dedicated to the development in each student of a dynamic personal philosophy of health care administration which will allow him to adapt to a constantly changing environment.

In developing the new curriculum the faculty strived always to tailor each course to meet a specific need. Those disciplines critical to the field of health care administration were identified; each discipline was separated into its component subjects; and the subjects were divided into topics. Each topic was then assigned a priority, and the level of learning which the student should achieve in that area was determined. Next, the topics were classified into courses and were sequenced to achieve maximum integration of subject material and the best possible allocation of classroom time was determined. This process resulted in the formulation of eight interdisciplinary core curriculum courses and several electives. The knowledge matrix* depicts the relationship between disciplines and courses. Typical of the integrated, interdisciplinary curriculum is the core course entitled Resources Management, in which three subject specialists use a team teaching approach in interrelating the three basic hospital resources—men, money, and materiel.

In order that students might gain the most benefit from each hour of instruction, a critical topic sequence was determined with the aid of concepts from program evaluation and review technique (PERT). Perting the curriculum revealed that it was not necessary to allocate to each course a certain number of hours each week throughout a semester. Instead, it was possible to concentrate the majority of the didactic hours in the first semester

*The knowledge matrix serves to interrelate the individual courses to all of the disciplines involved. The knowledge-level rating system devised by Harvard professor Robert W. Merry, provides the quantitative basis for transforming this conceptual structure into a mathematical model. The second input into the model is comprised of the numerical priorities for each discipline determined by the faculty. The Merry rating scheme and the faculty-established priorities define the knowledge level at which a course should be taught and the amount of exposure a student should have to each subject and topic.

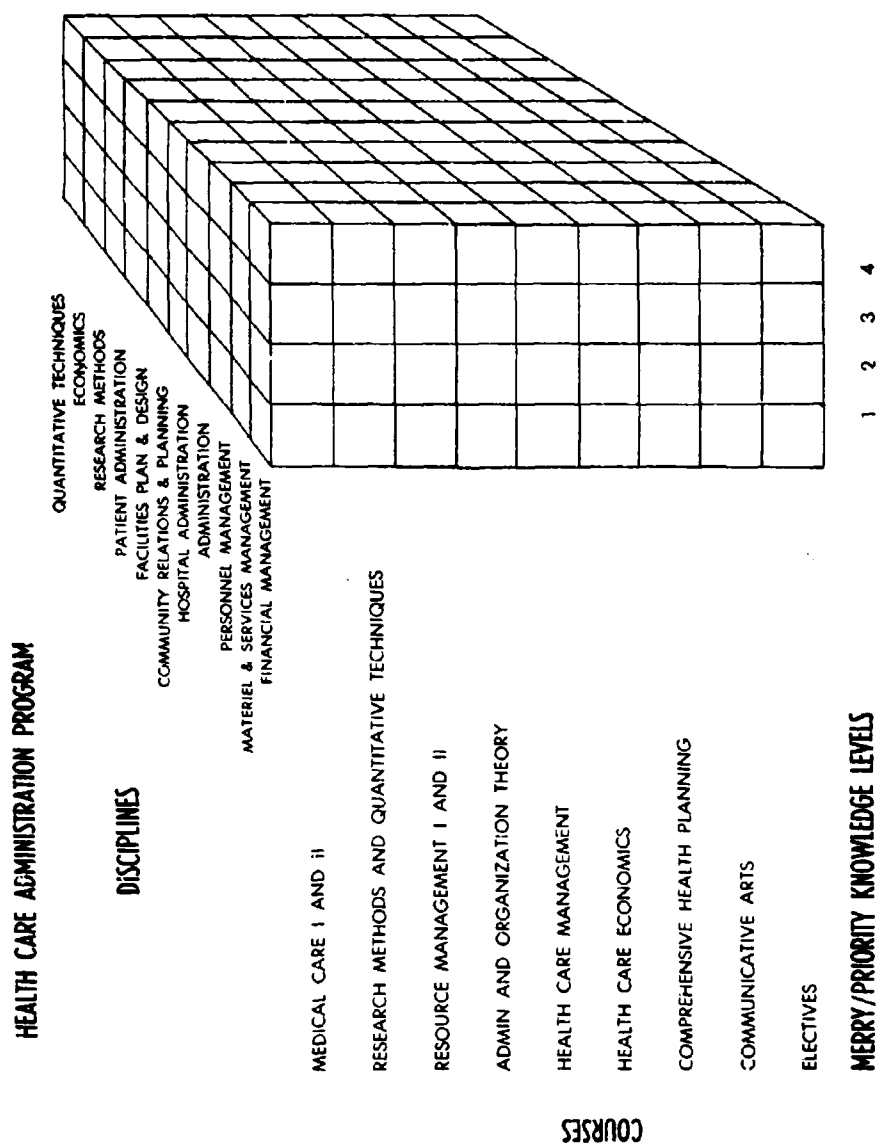


Figure 1

and reserve most of the second semester for practical exercises and case studies. In this way principles and techniques are taught to the students first; then the students are afforded the opportunity to apply them in realistic simulated situations and case studies.

Two distinctive features of the new curriculum are the teaching reference community and the problem solving project. In order to provide a common vehicle for integrated teaching of various disciplines, the Dixon, Tiller County USA Teaching Reference Community has been adapted for use in the Army-Baylor Program. This community simulation contains a large volume of demographic data, health problems, institutional data, and the feature of a large military base in the civilian community. The student's use of the simulation culminates in a second-semester course, Comprehensive Health Care Planning, that requires him to utilize all previously acquired tools, skills, techniques, and theories in developing a comprehensive health delivery plan which coordinates the military and civilian facilities into a total health care system for amelioration of community health problems.

The Problem Solving Project Report (PSPR) is another vital part of the academic year. Designed to measure the student's ability in problem definition, conduct of research, and solution of actual hospital problems, the PSPR provides the student with practical experience in solving the kind of problems he is likely to encounter as a hospital official. Each student is sent to study a problem in a military or civilian health care facility. These problems vary in complexity and may relate to one specific function or may involve all elements of the hospital. The student isolates and identifies a problem area in the hospital's operation, formulates a methodology and research design to use in solving it, gathers and evaluates pertinent data, and recommends a solution to the problem. A written report in the form of a graduate thesis must be presented to a thesis committee. The PSPR not only gives the student an opportunity to utilize his research training and problem-solving skills, it also provides the faculty with insights as to what problem-solving techniques should be taught.

The culmination of the academic year is the oral examination of each student by a faculty board composed of both military and civilian professors. The two-hour examination is designed to probe

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the student's depth and breadth of knowledge in the field of health care administration. This examination has been an important integrating device for the student. Examination before a panel of experts in health care administration helps the student better understand his role in the field; identifies any gaps in his knowledge; and allows him to demonstrate these skills, attitudes, and abilities acquired during a year's academic study.

Complementing the academic year is the twelve-month administrative residency, during which each student tests his recently learned principles and theories in an ongoing health care delivery system. Moreover, he must become knowledgeable in the internal operation of the hospital so that he can better understand the hospital's role as the central institution in the total health care system. By rotating through every major service and division in the hospital, the resident becomes thoroughly familiar with both professional and administrative functions. The faculty at the U. S. Army Medical Field Service School believes that a health care administrator must appreciate and understand the problems faced by the professional. He must be aware of the impact that his administrative decisions have on their practices, because high quality patient care is an impossibility without high quality administrative support. The residency schedule also includes provisions for the resident to observe and evaluate the professional and administrative practices at civilian hospitals and facilities in the local community—medical societies, area planning councils, and Blue Cross Associations.

As an administrative resident the student has the opportunity to study and analyze the functional activities of the hospital. He develops managerial skills through experience in the performance of administrative tasks and through participation in the solution of administrative problems. In U. S. Army and Air Force hospitals all over the world, the residency is served under preceptors who are carefully selected on the basis of their educational backgrounds, experience in the health care field, and interest in the education and training of younger officers.

Students successfully completing the residency program are awarded six semester hours of academic credit. To insure that

the residency year is an effective educational and training experience, there has been established an evaluation mechanism for monitoring student progress. The preceptor, whose pedagogical role during the residency year is vital, submits periodic reports of the student's progress to the U. S. Army Medical Field Service School and, in conjunction with the faculty, certifies satisfactory completion of the residency. The student's faculty advisor reviews the reports and makes recommendations regarding the conduct of the residency. Finally, the reports and the counselor's recommendations are reviewed by a residency committee comprised of senior faculty members. Through these procedures the preceptor and counselor share in providing guidance to the individual residents, and the committee insures that the programs are of a high quality.

The faculty conceives of the graduate program as being an educational system and, by using concepts from systems theory, has developed a diagram which depicts its component elements and their functions. Figure 2 illustrates the academic year and the residency year in such a context. Officers (input) who meet admission requirements attend a one-year academic program at the U. S. Army Medical Field Service School (processor) and become health care specialists (output), generalists educated to function in key staff and command positions at the level of an executive problem-solver. They process into the administrative residency (residency) which acts as a control mechanism that will continue to verify, together with student and faculty evaluations, the validity of the curriculum and thereby feed back into the processor the indicated changes. Another way of visualizing the integration of the two-year graduate program is illustrated by Figure 3.

The U. S. Army-Baylor Program in Health Care Administration recognizes that hospital and health care administrators in the decades ahead will need to develop a perspective broad enough to encompass all elements of the health care system. These administrators must be able to apply and evaluate sophisticated analytical tools, must recognize the impact of variable socio-economic forces on the health care institution, and must appreciate the importance of continued research and personal development.

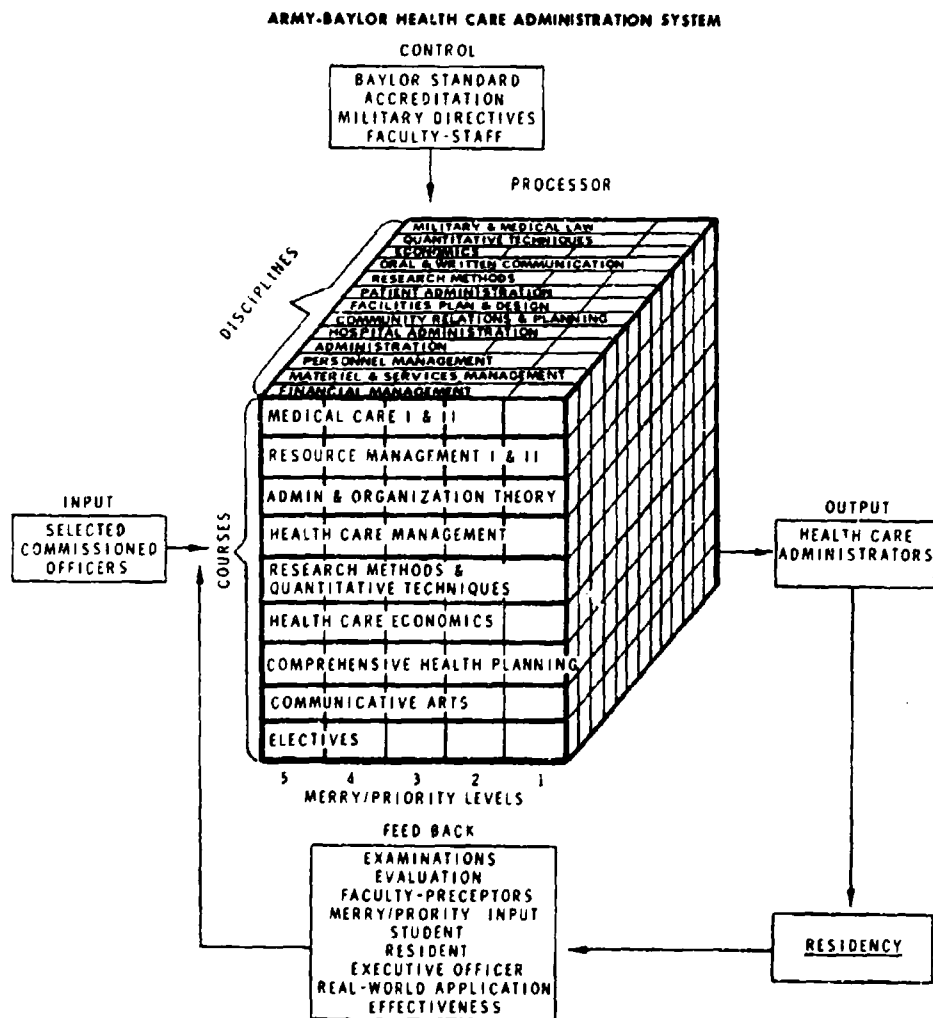
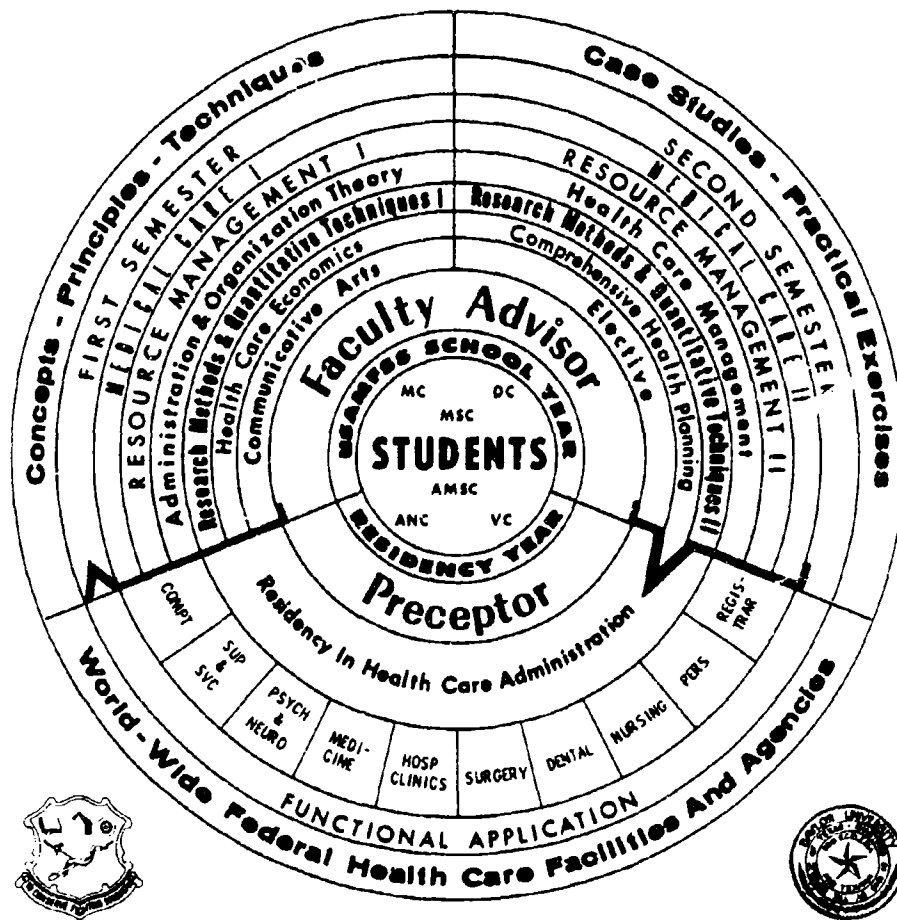


Figure 2

HEALTH CARE EXECUTIVE DECISION MAKER



ARMY-BAYLOR HEALTH CARE ADMINISTRATION PROGRAM 68-1036

Figure 3

108 THE FUTURE OF HEALTH CARE DELIVERY

In an attempt to keep abreast of the rapidly changing health care field and to incorporate educationally sound and professionally desirable features into the preparation of effective health care executives who will lead us into tomorrow's total health system, the U. S. Army-Baylor Program has developed what it considers to be a curriculum for the future.

Art of Preceptorship

Colonel Frank A. Neuman, MC*

The art of preceptorship—not science, but art! There is an immeasurable distance between science and art until achievement of some meeting point in infinity.

Preceptorship is not new. It is as old as any profession. It is given different labels in different professions. In medicine there is a preceptorship—or at least there used to be preceptorship.

I think that the role of the preceptor in health care administration is technically no different from the role of the preceptor in the teaching of a surgeon or a cabinetmaker. The role of a preceptor is to teach the student what he knows in order that the student may, hopefully, equal, even more hopefully, exceed, his own success in this field of study and endeavor.

Preceptors in the Army-Baylor Program in Health Care Administration receive residents from all corps of the Medical Department. Sometimes it is a bit confusing about what to do with a physician, or a dental officer, or a nurse resident. Remember that the purpose of this residency year, under a preceptor, is to acquaint and hopefully make expert the student with and in the problems of overall operation of a health activity. That is, to become acquainted with the intricacies of health care administration both within and without the building in which the preceptor may be located.

A good purpose will be served if each preceptor would try for a moment in the deepness of his imagination, removed from the reality of day to day work, to picture his reputation stemming from the results of the residency he would propose for his students.

*Assistant Commandant, United States Army Medical Field Service School.

What would he have that resident do? Would he bury him in a dental clinic because he is a dentist, or because she is a nurse, in the nursing service, or would he take the challenge of preceptorship and spread this individual literally over the entire surface of the health care problems within the institution? Would he do this so that at the end of the residency, and with experience which only time can provide, the resident will have acquired a degree of competence that the preceptor wishes he had; a degree of experience that time did not permit him to acquire; and a degree of dedication which is a direct reflection of that preceptor?

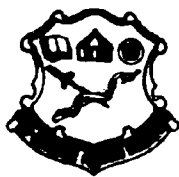
This, then, is the art of the preceptor—not to use the resident for dirty little jobs, for this is a purposeless waste of time, but rather to create and develop the resident in a comprehensive and meaningful manner.

Preceptor means teacher. The preceptor is an extension of the university. This is a demanding task. It cannot be approached or conducted lightly. It is a serious proposition. We have an expanding medical problem in the armed forces—imagine the magnitude of that problem in civilian life!


In the technical progress of today, we are producing information. We are acquiring data far above the capacity of any individual to absorb. Therefore it is important that we become specialized; but I think that it is important that a preceptor create out of his resident a specialist in the generalization of health administration rather than the specialist within the specialty. Create a man, or a woman, who knows the problems of administration in surgery or in centralized materiel or in a boiler room—but not to the point of becoming an expert. No one can be all things to all men. Rather, we seek the administrator who knows where to get the answer and how to acquire the data necessary to make the proper decision.

I do not know the formula for success, but I do know the formula for failure—try to please everybody. To be a preceptor one must be a little adventurous. Those who are gastronomically adventurous and a bit daring are called gourmets. I challenge the preceptor to wear the mantle of preceptor-gourmet in the conduct of his preceptorship and in the handling of his residents.

U.S. ARMY-BAYLOR UNIVERSITY
PROGRAM IN HEALTH CARE ADMINISTRATION
U.S. ARMY MEDICAL FIELD SERVICE SCHOOL
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We in the United States Army-Baylor University Program in Health Care Administration were extremely fortunate to have had such a distinguished array of speakers during our 1969 Preceptors' Course. In appreciation of your efforts in the health care field, we would like to share their ideas with you. We hope that you will find them both interesting and useful.


CHARLES L. EVELAND, Ph.D.
Colonel, MSC
Director